Gc
929.11
B22c
v.5,pt.1
1745967

M. L.

REYNOLDS HISTORICAL
GENEALOGY COLLECTION

ALLEN COUNTY PUBLIC LIBRARY
3 1833 01177 7510

189
S

CHRONICLES

OF

THE BUILDERS

OF THE

COMMONWEALTH

V. 5, pt. 1

Historical Character Study

BY

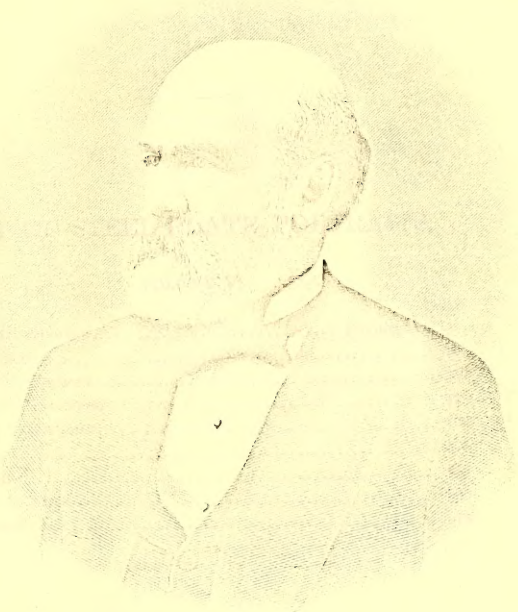
HUBERT HOWE BANCROFT

VOLUME V

189

SAN FRANCISCO
THE HISTORY COMPANY, PUBLISHERS
1891

1745967



C. P. Huntington

LIST OF STEEL-PLATE PORTRAITS.

VOLUME V.

PAGE.

COLLIS P. HUNTINGTON ..... Frontispiece.

ALLAN N. TOWNE 197

CORNELIUS VANDERBILT 359

WILLIAM H. VANDERBILT 479

CORNELIUS VANDERBILT 499

OLIVER AMES 575

OLIVER AMES 643

FREDERICK L. AMES 665

OLIVER AMES 673

CONTENTS OF THIS VOLUME.

CHAPTER I.

ROUTES AND TRANSPORTATION—INTRODUCTORY.

PAGE

Movements and Migrations of Peoples—Discovery of America and Voyages of Circumnavigation—Continental Travel and Influence of Great Thoroughfares—Spread of Intelligence—Building of Towns—Tide of Traffic—Roads and Railroads 1

CHAPTER II.

LIFE OF COLLIS P. HUNTINGTON.

Importance of Railroads on General Development—Men Who Aggrandize—Early Environment—The Building of a Strong Man—Setting out in Life—Habits and Principles—Success as a Merchant—Marriage—Removal to California—Isthmus Experiences—Business at Sacramento—Evolution of the Great Railway Idea—Necessity of an Overland Railroad—Construction—Finances—Consummate Skill in the Factorship and Management 13

CHAPTER III

ROUTES AND TRANSPORTATION—CALIFORNIA.

Aboriginal and Pastoral California—The Mexican Carreta—The Era of Gold—Steamboating on River and Bay—Boat-building—Competition—Discomforts—California Steam Navigation Company—Prosperity and Rapid Development—Navigation of the Colorado River—Freighting—Wagon-roads and Wagon-road Traffic—Early Ferries and Bridges. 123

CHAPTER IV.

LIFE OF ALBAN NELSON TOWNE.

A Graduate from the Old School of Railroading—The Problem of Transportation in New England and the Far West—The Power of Self-help Exemplified—Eminent Success Earned by Hard Work—Force of Character and Talent—A Career of Extraordinary Usefulness and Achievement 197

CHAPTER V.

ROUTES AND TRANSPORTATION—INLAND AND OVERLAND.

Early Express Business—Stage Lines—Postal Matters—Transcontinental Mail and Passenger-wagon Lines—The Pony Express—Telegraphic Communication—Submarine Telegraphic Efforts and Achievement—The Telephone 253

CHAPTER VI.

ROUTES AND TRANSPORTATION—OCEAN TRAFFIC. PAGE

Early Vessels in Pacific Waters—Inflocking Ships of the Gold-diggers—Ship-building—Wrecks and Disasters—Ocean Steam Lines—New York and San Francisco via Panamá—The Tehuantepec Route—Through Mexico via Vera Cruz and Acapulco—The Nicaragua Route—History of the Pacific Mail Steamship Company 359

CHAPTER VII.

LIVES OF THE VANDERBILTS.

Cornelius Vanderbilt the Elder—Family Ancestry—Corneile the Boatman—California Steamship Line—Investments in Railroads—William H. Vanderbilt—Banker and Farmer—Railroad Career—Originality and Boldness of Enterprise—The Vanderbilt System—Cornelius Vanderbilt the Younger—New Railway Management—Systematic Charities—Library and Art Collection—Marriage—The Power of Possession 459

CHAPTER VIII.

RAILWAYS—OBSERVATION TOURS AND DISCUSSIONS.

Magnitude of the Proposition Involved—The First Railroads—Westward-tending Speculations—Trails of the Fur-hunters—Government Expeditions—Projects and Proposals—Diversity of Claims Advanced—Sectional Jealousies—Railroad Conventions and Printed Discussions—Predispositions and Prognostications—Popular Ideas and Interests—Attitude of Congress 504

CHAPTER IX.

RAILWAYS—EXPLORATIONS AND SURVEYS.

Singular Subsidizations—Land Donations—Enormous Wealth of Development—Influence of California Gold on Eastern Railway Construction—Numberless Congressional Railway Bills—Progress in and about California—Pacific Railroad Surveys—Collateral Expeditions—Stupidity of Official Surveyors among the Routes and Passes of the Fur-traders and Emigrants—Voluminous Publications—Extensive Reconnoissances on the Pacific Slope 540

CHAPTER X.

LIVES OF OAKES AND OLIVER AMES.

Ancestry and Parentage of Oakes Ames—The Easton Shovel Works—Early Career—Councillor—Congressman—The Union Pacific Railroad—The Credit Mobilier—The Ames Contract—Congressional Investigation—Testimony of Senators—An Unrighteous Verdict—Decease—Tributes to the Dead—Oliver Ames—Frederick Lothrop Ames—Governor Ames 575

CHRONICLES OF THE BUILDERS.

CHAPTER I.

ROUTES AND TRANSPORTATION—INTRODUCTORY.

Early Movements and Migrations of Peoples—Discovery of America and Voyages of Circumnavigation—Continental Travel and Influence of the Isthmuses—Spread of Intelligence—Building of Towns and Line of Traffic—Roads and Railroads.

The westward march of empire, as emphasized in the expansion of the United States domain, may be traced back to the generally accepted migration of the Aryans, which was followed by certain Turanian pursuits and invasions, causing such partial refluxes as the crusades, which sought in vain to stem the current. A long, mediæval repose supervened, which was broken by a momentous revival of maritime expeditions under the Portuguese.

Migration had been stayed by the sea at the western world's end, to drop to minor movements confined within circuitous areas. The indented outline of Europe favored intercourse by water, but the progress of navigation was slow, long depending on oared galleys, with only a partial use of sails, and the compass still unknown. Hence, seamen skirted the coasts, as for example the Phœnicians, on the way to their legendary Thule, and round the dark continent. The vikings on their depredatory tours struck across the ocean with a certain boldness into the North sea, or Mediterranean, or even to America.

The attempt of the Portuguese was a new departure rather than a revival, and owed its origin to a great extent to the scientific awakening which had brought improved methods to navigation, notably in the com-

pass. It resulted in the discovery of America. Enterprise received a great stimulus from the opening of so vast a field for traffic and adventure, for conquest, commerce, and settlement. Exploring vessels increased in number, and became trading fleets; stately galleons took the place of the ancient ships of the desert and levantine caravans; rakish pirate craft followed like sharks in their wake; stately clippers vied with freight steamers in the rush of traffic, connecting with the railway to form a girdle round the world, and reduce its circumnavigation in time to a few weeks.

The first direction of the current of population in America was from the southeast to the northwest, to the silver regions, and in search of the ever-eluding interoceanic passage. The great interior remained for centuries impenetrable, by reason of hostile savages and other barriers. The movement therefore followed the seaboard, and this in America endowed the discoverers with something of the supernatural in the eyes of the natives, for sails and sea-going vessels were unknown to the aborigines. Balsas or rafts, dugouts or canoes, rarely of any great size, were their sole water craft, which appeared insignificant before the huge, winged ocean-houses of the strangers. The trappers adopted largely the native birch canoe, though using also regular boats for their river expeditions. With these they gradually pushed across the continent, shooting the rapids of unknown streams, and forming by the opening of the present century routes of travel, with boatmen or voyageurs between the two oceans.

A similar route was established between Europe and the orient and the Spanish western main, by means of formidable galleons, ponderous and heavily armed, for defence against the numerous marauders attracted by their rich cargoes of treasures and spices. They gave rise, in fact, to the notorious buccaneers, who from their lairs in the West Indies ravaged both

s[illegible] and coast, and contributed not a little to the decline of maritime enterprise among the creoles.

With [illegible] less need for water traffic in his portion of the new domain, the Anglo-Saxon retained the viking's love of navigation. He preferred smaller and swifter craft, adapting himself to circumstances, however, and [illegible]ing in due time the stately clipper, which surpassed ocean vessels in beauty and speed. It met [illegible] requirements of progress, reducing the passage from New England to California to three or four [illegible]. The northern Pacific coast favors sailing [illegible] with its steady trade winds, so that the steamer [illegible] its costly coal is less indispensable than might be [illegible]ected from the bustling disposition of the inhabit[illegible].

The ocean steamer came just in time to assist [illegible] greatest of migrations—to the new El Dorado. Indeed, it drew the passenger traffic from the Cape Horn route, and left the tedious overland journey [illegible] its hardships chiefly to travellers from the west[illegible] states. The difference in time likewise gave [illegible]mers a share in the transportation of freight, of which they were deprived to some extent in their [illegible] by the railway, though the Pacific mail company found some compensation in the augmenting intercourse with the trans-pacific countries.

On the inland and coast waters steamers multiplied rapidly after 1849, and, reënforced by the shallow [illegible]wheeler, they pushed the head of river navigation [illegible] Red Bluff on the Sacramento, to Yale on the [illegible]r, for 150 miles along the Stikeen, to Fort Benton [illegible] the Missouri, and far up the Colorado and other streams, providing facilities and cheaper rates in [illegible] regions— boons alike to the interior of British [illegible] and Montana, and to Arizona and Spanish [illegible] Each step in advance was marked by the extension of surveys, the improvement of harbors, the dredging of rivers, and the erection of lighthouses, which tended to lessen the risk attendant on traffic in

strange waters. Yet the recklessness bred by competition was chiefly to blame for accidents. The consolidation of rival interests, as effected in Oregon, California, and elsewhere, while adding to the tax upon the public, provided superior accommodations.

Few navigable canals have as yet been constructed on the Pacific coast. Oregon has its river locks, which serve to open a wide region extending to join different states, besides promoting intercourse with transmontane territories. In several directions irrigation canals promise to become important factors in moving products, as illustrated by the timber flume, which renders accessible remote and otherwise useless mountain forests, thus cheapening lumber in those localities. In the south the idea is taking the imposing form of interoceanic communication, the dream of civilization since the days of Columbus. The belief in a natural passage between the two seas was held until the last decade of the preceding century. Explorations of the isthmuses were made to seek an artificial remedy. At Panamá the problem has obtained a partial solution since the fifties, in the railway which it is hoped may be followed by a ship canal in due time. The ancient Nahuas were well advanced in this direction on a small scale, for Tenochtitlan boasted its canals, with locks and basins, to accommodate the rush of canoes from the several lakes of the valley, which were connected by passages. Their suspension bridges, although flimsy, possessed intrinsic scientific merits, which might in time have borne better fruit.

The roads, rivers, and trails across isthmuses constituted for over two centuries the great arteries for American traffic. Then began the straight latitudinal advance under the fur-traders, who opened routes for the migration soon to follow. The Nahuas and Mayas, unlike the Peruvians, possessed no beasts of burden, and their not inconsiderable intercourse

by land had to be performed with caravans of carriers unaided even by a wheel.

The well-paved causeways and roads exhibited by them in several districts were long unequalled by the indolent Spaniards, chiefly from the prevalence of conveyance by mule-trains, in accordance with the custom of the peninsula. The system harmonized likewise with the tastes of the creole, whose eye for the picturesque dwelt upon the serpentine course of the train as it wound along by the cliffs and hillsides, riders and animals alike often arrayed in gay trappings, the course being marked by the tuneful jingle of the leader's bell. In California it prevailed during the period of flush times, and in Colorado and other mountain regions it proved indispensable.

The Anglo-Saxon on the other hand adhered firmly to the economic vehicle. His first task in the wilderness was to blaze a trail for future guidance, and to connect his backwood cabin with the nearest settlement by means of a road. It was a habit implanted by the more level surface of the English-speaking sections of Europe, and by the denser occupation which precluded the use of many animals. The Mormons followed the example with precision. They sought to cover with settlements as much ground as possible, and in founding a village a committee was early detailed to prepare a road to the nearest base for communication. In British Columbia the government wisely availed itself of a host of miners, blocked in their advance by the roughness of the Fraser region, to open a highway into the interior. The Columbia had hitherto served as their roadstead, but the custom-house restriction and trouble imposed by its new owners turned traffic up the Fraser.

Good roads were pronounced a boon of civilization. In new territories the legislatures were lavish with charters, and good toll roads were constructed on every side. Some complained of the charge, particu-

larly when a small outlay for improving odd bits of natural roadway and covering some brooks with a few logs became an apology for a bridge. Ferries sometimes added to the extortion by controlling the exclusive crossing-privilege for several miles on either side. In this manner the movement of poor emigrants was at times checked for lack of means to meet the different road tariffs. Nevertheless the roads proved a blessing.

The picturesque mule-train of the Mexican found its counterpart in the ungainly wagon, the so-called prairie schooner of the American, sometimes of several tons capacity, and conspicuous for its dingy white cover, within which a large family was frequently sheltered. A line of these vehicles, with drivers and escort, presented by no means an unimposing feature on the western prairies. The inhabitants of New Mexico were the first to compare it with their own less unwieldly trains at the opening of the Santa Fé trade. Shortly afterward the continental range was crossed, and in 1849 the tented wheels began to stretch in an almost unbroken line to California, in well-regulated processions, with officers and guards. The successive opening of mining fields in the interior was marked by similar movements, attended by rivalry, from different quarters. Thus Idaho, formerly entered from Oregon, was soon reached by roads direct from California, while the eastern states sent goods up the Missouri to Fort Benton, and along one of the few military roads westward. The traffic with Montana alone, mainly by this route, employed between 2,000 and 3,000 men, and nearly tenfold that number of animals, while Colorado claimed at one time 10,000 freighters, a very turbulent class, ever prepared for an encounter with the savages on the road, and with whiskey at the station.

The stage for passenger conveyance acquired its highest perfection among the Americans, like many other contrivances for the accommodation of the pub-

lic. In some districts sprinkled roads added to the comfort of the elegant coaches. Here, also, monopoly effected combinations to sustain prices, while sometimes giving certain compensatory advantages in return. Lines extending from the Missouri river branched midway, one going to California and another to Oregon.

The development of the express business was particularly striking, one leading company possessing branches throughout the length of the coast. Urgency and high pay stimulated it to efficient service, the official operations of the government being widely surpassed in the carrying of letters. A remarkable branch of service was the pony express, composed of relays of solitary riders, who sped across the continent in face of hostile savages and other dangers. Expressmen must be equally courageous, for highway robbers were numerous. There are frequent instances where a resolute expressman bade defiance to several assailants and saved the property entrusted to his care. In Mexico, the home of footpads and marauders, surrender was the usual procedure of the minority.

More widely sung was the fame of the stage-driver of the mining regions, whose skill with the reins and gallantry toward women have been the theme of many tourists. The guides of the early explorers and immigrant parties live in history, and in the mountains and streams dedicated to their memory.

The supremacy of wagons and steamboats was of short duration, for new territories, owing to the large influx of population attracted by successive gold discoveries, led to the construction of railways, and reduced to tributary position the stage and express, the steamboat and minor craft, while augmenting traffic in general by its greater speed and cheapness. Although Spanish America displayed the least enterprise in progressive measures, the first interoceanic railway was constructed across the isthmus of Panamá,

but by and for the accommodation of the people of the United States.

The spanning in like manner of the broader northern section of the continent was agitated at a still earlier date, but the distance, cost, and obstacles kept back capitalists, even after the government had proposed its aid. Finally the prospective remunerations of the road assumed more attractive colors, under the experimental efforts of the branches within the settled districts, and subscriptions were secured, and in 1869 the greatest of railway feats was accomplished.

The road quickly demonstrated its value to the owners as well as to the public. The exploration for routes contributed a vast fund of information to geologic and other scientific knowledge, besides information which hastened the development and occupation of the great interior. The work of construction served to promote settlement along the line. Wyoming, for instance, was practically built up by the road, which, on the strength of the expected traffic, founded several towns. Cheyenne sprang up so rapidly that it was called the magic city. Railway shops and a branch southward gave solidity to the place, which was sustained by traffic with the mining districts. The same road made it possible to develop coal and iron mines at other points, which gave employment to hundreds of men, the mainstay of several additional towns. Nevada and Utah gained in similar manner, the latter also from the money distributed for wages among the Mormons. A number of branch roads, now alone feasible, lifted to intercourse and prosperity a number of outlying districts.

The disturbance created in manufacturing and certain commercial circles was slight as compared with widespread blessings. Panamá, whose early Spanish transit trade had been revived with the California traffic, saw its prospects clouded by the diversion of passengers and goods to the new channel along the

forty-second parallel. Even half of the exports took this route. As for the imports of the coast, partly turned by the war into a foreign channel, the eastern states regained the ascendancy.

San Francisco lost much interior trade, which formerly passed through her port, but which now was distributed en route. She retained much entrepôt traffic with the coast, however, and secured an enlarged commerce with China, Japan, and Australasia by virtue of the overland line, her central geographic position, rare harbor facilities, and command of rich valley outlets. Her rise upon the sandhills at the gate of the bay, rather than upon the more favored strait of Carquinez, was due greatly to the accident of a well-known name, and to the haste of the fleets to anchor at the first available point.

In the north the hopes of the fur-trading emporium of Vancouver had been shattered by the dangerous bar at the mouth of the Columbia river, which early drove the shipping to Puget sound. The transfer of the territory gave rise to the new British entrepôt of Victoria, with its several advantages of harbors and controlling situation. Portland, Sacramento, and Stockton are sustained mainly by the command of rich valleys. The absence of better ports gives prominence to Vera Cruz, as does the isthmus position to Panamá, and the harbor to San Diego.

The railway has proved a power in creating or lifting towns to importance, particularly in the interior. Several of the county and state capitals owe their existence to railways, as Cheyenne, Modesto, Tacoma. Denver's future was doubtful until her enterprising citizens, by dint of personal efforts and negotiations, assured her as the railway centre of the state. Other illustrations of decadence can be given, where the iron road passed by a once flourishing settlement, whose sole dependence was agriculture or exhausted mines.

The conditions governing the selection of sites vary considerably in Spanish and American countries. In

the former the government has had a voice in such matters, and the proximity of certain natural features regulated development. In the other the predominance of vehicles, the readiness with which natural defects were remedied, as in bringing water, levelling or climbing hills, and the manipulation of interested speculators have had their decisive influence. Paper towns, floated or collapsed, belong to the United States, and are unlike such centres as Guanajuato, Helena, and Nanaimo, which are based on mineral resources; or Salem, San José, and Puebla, founded on agriculture; or Guerneville and Alvarado, dependent on manufacture; or suburbs and resorts, like Oakland, Jalapa, and Santa Cruz. They conform more closely in their selection to the general aspiration for traffic, in being located at heads or outlets of navigation, or swayed by the fickle projection of some road rather than of prospective industry; the application of a suggestive or attractive name contributed not a little to success, as instanced by San Francisco.

The success of the first transcontinental road led to numerous projects for tributaries and for rival lines. The railway through Montana to Washington made its way, despite bankruptcies and delays, relieving the isolation of a vast interior. Two other roads profited by the experiment, and pushed their way through the southern sections, with branches dipping into Mexico. In the matter of alternate sections of land which in new and unsettled regions were usually donated by the government, a lesson might be learned from Colorado, which arranged with the grantees to so improve their tracts as to benefit the state lands, and raise their sale value.

British Columbia took advantage of its geographic position as a new highway to the orient, and of British fear and jealousy of the United States, to obtain from Canada and England the construction of a transcontinental line in advance of requirements. It seeks,

however, to atone for its haste by bidding at low rates for the trade of the southern countries, to be carried by this circuitous route in and out of the United States.

The effect of the competition has been to divert still more of the trade once passing through California to intermediate points and termini in the south and north. San Diego receives cargoes direct from abroad as the entrepôt for a region fast filling up with people, and Victoria is striving to secure a portion of the oriental and Australian transit trade for the Atlantic shores. The prospective completion of an interoceanic canal, with cheaper water carriage and saving in the handling of goods, must interfere with transhipments, and force the railways to rely more upon their regular business, and consequently to direct more of their efforts to local development.

In common with general development in other directions throughout western North America, it is doubtful if ever again the world will see such progress as has been made in the laying out of roads, the construction and equipment of railroads, and the improvement in sailing vessels and steamships during the last half-century. True, much remains to be done, but not so much as formerly, nor in latitudes so favorable. The facilities for migration and transportation which we to-day enjoy were not so much as deemed possible of accomplishment a generation ago.

In this part of the biographical section of my historical series is presented a more full and thorough account of the rise and progress of all that relates to the subject of transportation, the routes and methods of travel, and the results thereof in the way of town-building and the transformation of the wilderness, together with the attendant telegraph, mail, and express facilities, than has ever before been published. The information comes mainly from original

sources—largely from the individuals themselves who have performed these gigantic tasks.

And as railways and railway traffic have come to the front in the transportation business, have indeed risen in volume and importance superior to all other kinds of business, it is most appropriate in the selection of biographies and portraits for the embellishment of such a work to choose those most conspicuous in railway circles, as we are certain thereby to secure for our instruction and profit the lives of those most conspicuous in business circles of whatever kind or distinction.

Among the writings of antiquity, we find no more brilliant conceptions, whether of men or gods, no vaster achievements, whether on earth or in heaven, than the work accomplished in our very midst by those who have spanned the continent with their lines of travel, laid iron tracks over plains and through mountains, and on them placed rolling palaces of comfort and pleasure, for the furtherance of commerce and the better intercommunication of the race. No effort is more sublime, no accomplishment more humanizing, no result more civilizing, than this bringing of the earth's ends together, and the making of one language and one people all the nations of the world. Those in whose minds originate such ideas, and in whose hands they are executed, are the true embodiments of progress, the true civilizers of mankind. Throw, even now, round nations, great and small, the ancient walls of feudalism, barring human intercourse and the interchange of ideas, and straightway we relapse into a new dark age.

Nor can this vast and important subject be better begun than by placing at the title-page of this volume the portrait of Collis P. Huntington, and giving his biography here. The subsequent parts of the work will be illuminated by the lives of others conspicuous in like or kindred undertakings.

CHAPTER II.

LIFE OF COLLIS P. HUNTINGTON.

Influence of Railroads on General Development—Men who Aggrandize—Early Environment—The Building of a Strong Man—Setting out in Life—Habits and Principles—Success as a Merchant—Marriage—Removal to California—Isthmus Experiences—Business at Sacramento—Evolution of the Great Railway Idea—Necessity of an Overland Railroad—Construction—Finances—Consummate Skill in the Factorship and Management.

Among the phenomena of the universe the strength of the strong man most of all commands attention. For in the possession of this faculty exists all; in its exercise lives and moves all, material and immaterial. Herein all men and things, natural or supernatural, are nearest akin. Nature is charming; it is a most interesting study to penetrate her secrets and watch the display of dynamic influences. The author of nature is far from us, and we understand so little; but man is our brother, and his strength our strength. The ever-widening dominion of man over nature, the ever-increasing subordination of the material to the mental, is god-like, or more than god-like; for there is no spiritual force, as yet appearing, which can in any degree retard human progress. The march of mind more than keeps pace with the evolution of all other entities.

The great men of the present age are greater than the great men of antiquity; for the reason that it is more difficult to build up than to tear down. It is more difficult to lay a track for a steam-engine, over the Sierra Nevada than to cross the Alps on horseback

—more difficult to construct that engine than in the olden time to stir up the pride and passions of the people to wars and butcheries, resulting in great so-called glory.

The industrial, and consequent social, development of the Pacific coast, during a comparatively few years is more striking and important than has ever taken place in any other country during an equal period of time. Among the agencies which have contributed to this development, particularly in its later and better aspects, that of transportation has been the most potent and far-reaching in its operations and influence. Unquestionably, also, the chief agency in the department of transportation has been railroads. I apprehend that the correctness of these three propositions will be admitted without argument.

By way of further introduction to this biography a fourth proposition may not be out of order, for the soundness of which the facts, as they fall incidentally into the record, must be allowed to speak for themselves. It is this: That in railroad affairs on the Pacific coast Collis Potter Huntington has been among the foremost of creating and controlling spirits, and has contributed to this phase of Pacific coast development talent of the rarest order. If this be true—and there is not the remotest doubt of it, notwithstanding any popular fancy that may exist to the contrary—what follows? This, that his has been among the greatest individual forces contributed to the material and social growth of western North America; that in this building up of empire, under conditions new and strange, he has been conspicuous among the great factors associated with him.

Still he does not come into this history solely on account of his identification with railroad work on the Pacific slope, though this is the central idea of the study, for, apart from transportation, his individuality was otherwise felt and recognized in California and the east.

His influence has been that of the practical man of business. He began his career in this wide realm of complex activities doing whatever his hands found to do, and doing it with a will, almost at an age when most boys are still in the nursery. Thenceforward a law unto himself, as though offering by his inborn powers an instance of natural selection for a great work, he has worked out his destiny with a certain fulness and perfection of development. But the conventional man of letters may demand upon what ground historical importance is claimed for such a character. If an apology be demanded for an endeavor to look into and perpetuate the life-work and spirit of such an agent in human affairs as this question implies, I have but to ask if it be a thing worthy of the approbation of mankind, whose enlightenment and progress depend more than all else upon garnering up the lessons of experience, to seize and save a vital record of these Pacific States during the last forty or fifty years, for of this striking epoch he is a conspicuous exponent. Men of war, scientists, philosophers, explorers, poets, rulers, and princes have as a rule monopolized the attention of their fellows. I deal with men who, though unerowned and untitled, are kings in the actual sense of that word—sovereigns by peaceful conquest, creators of dominion, industrial and intellectual. I look more to the substance of things than to the form. It rather stimulates than daunts me to realize that the actualities of life which I would present through a study of the chief personages of the drama have been slighted by the generality of those upon whom we depend for the chronicles of the human race. It has ever been that he whose deeds stir the emotions or startle the sensibilities is apt to engross the public mind. But is this all the food that literature has to feed upon? Do even the philosopher, the mathematician, the orator, and the poet contribute all to the enlargement of men's minds and the improvement of

society? Is not intellectuality, of whatever form, an essential in belles-lettres? Is the genius of commerce to be eschewed? By what energy have nations risen; by a misapplication or waste of what energy have nations fallen?

If commerce may be considered as the superstructure of community life, so may inter-communication be termed its foundation. It is more potent than all the missionaries and all the schools. This is a practical truth and will be accepted as such by all those who do not pay arbitrary tribute to conventionality or precedent. What, then, may we not fairly assume regarding the calibre and quality of men who have engendered, broadened, and controlled, in its various intricate and perplexing forms, the commerce of a vast community? I deal exclusively with those who actually augment, who, in working out the problem of individual life, expand the resources and contribute in large measure to the wealth and happiness of the country of which they are a part. If among men there be a more substantial, a more useful, or a more commendable agency than this, an agency requiring stronger intelligence or better character, I confess my inability to perceive it. In what the intellect required for success in business differs from that which succeeds in science or art is, at best, speculative. I am convinced that the consummate man of business possesses capabilities that would have won eminence for him in letters had his talent been developed in that direction; in fact, men of business have won laurels in literature while distinguished scholars have proved themselves excellent men of affairs. But whatever else may be said, there is no question that the former are the bone and sinew of every land and that in the United States they dominate in the affairs of the nation, not only through the channels of trade, but personally in the legislatures of the states and the general government. For the most part they

are not only the body, but the mind of our institutions. These stalwart men, educated in the broadest sense, their abilities developed by friction and their minds expanded by observation, which an eminent writer has defined as genius itself, possess a wisdom which Bacon declares is outside of books and above them. Type of this class, exemplifying American aristocracy of character, may be found in Mr Huntington. In my thoughts of him and other New Englanders, who have either made or revitalized their family names in a new country, it has sometimes seemed to me a special act in the economy of providence that there should be reserved such a nursery as New England—a necessitous region of inhospitable climate, in which the struggle of life begins almost at the cradle—in which to rear men of iron frame, keen wit, indomitable spirit, and uncompromising loyalty to morals and good government, who should go out in their strength to settle and build up civilization in the wildernesses and waste places of the far west. The distinction and virtue of such service to mankind should be crystallized and perpetuated in the name of the pioneer. In our society and government a man's name of itself alone gives him no title to consideration. This is as it should be; but true worth everywhere gives vitality to the name of its possessor. As an expression of the man his name becomes, by virtue of his career, a living power. A good name fairly earned should not be, and is not, less prized in America than in Europe; for pride of character, which is inseparable from pride of name, is universal, natural, and manly. Such a name is a sacred inheritance; there is no other heirloom half so precious. To the extent that it is appreciated for its moral force it is a tonic. Wendell Phillips, who was one of the fairest exponents of republican spirit, charges us to garner up the experiences of our ancestry. "I can conceive of nothing more unfortunate," said he, "than a lack of desire to understand the early founding of

our societies or to explore the sources of individual power, which are the sum of national greatness." There is a text for many admirable practical sermons in a single name, about which cluster the associations of a long, active and valuable life—a name which is the index to character. Especially is this true if eminence has been attained by means of self-help, which is at the root of all genuine growth in the individual and which, exhibited in the lives of men, constitutes the true source of national vigor and strength. It manifests unmistakably what it is in the power of each to accomplish for himself, enabling men of even the humblest beginnings to work out for themselves a rank and position commensurate with their talent and industry.

The life of every man is as the well-spring of a stream, and it is a solemn thought that this influence, which has had a beginning, will never have an end. There is indeed an essence of immortality in the life of every man even in this world. No man's acts die utterly; and though his body may resolve into dust and air, his good or his bad deeds will still be bringing forth fruit after their kind and influencing future generations for all time to come. It is therefore the supreme duty of the historian and biographer thoroughly to comprehend and analyze the indestructible human force which he studies, in order that he may, as far as possible, preserve it in its individuality, in its organic entirety, so that here among men its beneficent influence may be enjoyed now and forever. "The life of the lowest mortal," says Carlyle, "if faithfully recorded, would be interesting to the highest, then how much more interesting when the mortal in question is already distinguished in fortune and natural quality so that his thinkings and doings are not significant of himself only, but of large masses of mankind." "How inexpressibly comfortable is it to know," he says, "our fellow-creature, to see into him, understand his goings forth, decipher

the whole heart of his mystery; nay, not only to see into him, but out of him; to view the world altogether as he views it, so that we can theoretically construe him and almost practically personate him."

Deep in the green midlands of Connecticut, inaccessible by any means of communication more modern than the old wagon-road of primitive days, slumbers, as it slumbered a hundred years ago, the little hamlet of Harwinton. Here C. P. Huntington was born October 22, 1821.

Huntington is an old name which is said to have reached England with the Normans in the eleventh century, and among the noted men of this stock in America was Samuel Huntington, who was one of the signers of the declaration of independence, president of the continental congress, and chief-justice of Connecticut. Ebenezer Huntington was a lieutenant-colonel in the revolutionary war, and in 1799, when the French war threatened, was, on the recommendation of Washington, appointed brigadier-general. To the same stock belong the right reverend Frederick D. Huntington, bishop of New York, and Daniel Huntington, the distinguished painter, president of the national academy of design. The Huntington family first emigrated to America early in the seventeenth century.

Experienced educators have declared that while intellectual brilliancy and scholarly attainment are possible in a single generation, long sustained mental activity and constantly augmenting mental power are legacies which may be inherited only by the descendants of an educated ancestry. Thus it has been found that while individual specimens of barbarous or semi-barbarous races, may manifest aptitudes for learning, they invariably fail in continuous mental effort. When the long sustained activity of Mr Huntington is considered, even were a knowledge of his progenitors less definite, the appli-

cation of this test would indicate for him descent from an educated and intellectual ancestry.

Mr Huntington's father, William Huntington, was a man of large frame, standing six feet two inches in his stockings. A man of severe character, his puritanism expressed itself in an austere virtue based upon radical convictions of right and wrong. Strikingly original and independent in his views, and cherishing exact ideas of justice, he did not give himself up to the religous conventionalities and dogma that dominated New England in his day. He went to church only occasionally; and even this compliance with the prevalent custom was due almost wholly to the deference he always manifested for his wife, who was a devout presbyterian, for he himself had no leaning to any sect. At the same time he was thoroughly versed in scripture. He had the bible at his tongue's end, and delighted in controversies touching scripture; so keen was his mind and so ingenious was he in argument that few could stand up against him. He was radical in his opinions on whatever subject, and if he was severe, he was so conscientiously. His ideas of training his children were rigid and practical, and in these days would be considered hard and narrow; still it is a régime to which we owe some of the strongest men of our country. He did not believe in wasting time with them, as he called it, holding that if a boy had anything in him and had been taught to read, write, and cipher, he would make his own way in the world.

His wife's ambition was that her children should grow up to be moral, religious and useful members of society. Her influence over them was through sympathy and affection. In her sphere she did her whole duty. She was a woman of exalted character, and had her responsibilities been greater and her opportunities commensurate, doubtless she would have manifested adequate capabilities. Her larger life, in some respects, may be looked for more

properly in her son, whose field of labor afforded him the opportunity of fully developing the good traits which he inherited from her. The virtues thus transmitted to and confirmed in him by her loving example have probably been more instrumental than all other moral agencies combined in forming his character and governing his acts. The mother is so often repeated in her children. Acts of affection, counsel, patience, self-control which they daily exemplify, live when all else that may have been learned has long been forgotten.

As showing the astuteness as well as the self-confidence of the elder Huntington, it may be noted that among the sage maxims through which he expressed his knowledge of men and business was this: "Do not be afraid to do business with a rascal —only watch him; but avoid a fool, for you can never make anything out of him." There was much more of expediency or common-sense in his composition than reverence for form or rule; hence he did not go much beyond his own judgment or conscience to determine the propriety of his own acts. Altogether he was a marked personage of singular and powerful individuality.

From this parentage the boy Collis derived the blood and iron that made up so large a part of his constitutional outfit, though from his mother's gentle nature he inherited a group of softer tendencies that were destined later in life to blossom and expand into practical benefactions which will make him long remembered as the friend of the oppressed and unfortunate.

From the father, who, besides, had unusual mechanical ingenuity, he inherited also that fondness and genius for barter which made the son distinguished as a merchant no less than as a railroad financier.

From early childhood the boy Collis led a busy life. He was the fifth of nine children, and industry was the motto of the household. His native town

was a hard-working community. Labor was the criterion of respectability. Children who were too young to bring in wood brought in chips. Mr Huntington, speaking of those early days, has said that he could not recollect the time when he was not doing something useful. It is a tradition in the neighborhood that when only eight years old he yoked up a pair of oxen and brought in a load of wood from a hill close by. Another story told of him when he had attained his ninth year, is that, being employed by a neighbor to pile up in a woodshed a quantity of wood, he did it neatly, and then with that liking for good work which has since distinguished his railroad constructions, he picked up all the chips in the wood-yard and put them into barrels. His employer was so well pleased that when he gave him his dollar—the first that the boy had ever earned—he patted him on the head and said: "You have done this so well, I shall be glad to have you pile up my wood again next fall." It may be truly said of him, as Hugh Miller said of the mason with whom he served his apprenticeship: "He put his conscience into every stone he laid." He who told the story as being within his own remembrance added, and "Collis was much delighted with the praise and with the dollar, but he said to me with a bright laugh: 'You don't suppose I am going to pile wood for a living the rest of my life, do you?'"

During his boyhood he attended school for four months in the year and worked the rest of the time. There was much taught that he took no interest in learning. Mathematics, geography, and history he liked and studied, but he did not give much time to anything he did not like. There is little doubt that he knew more of history and geography than any other pupil in school. There were many older than he. When reading history, which had for him all the charm of fiction, he always kept a map at hand, making topography and locality the basis of his study,

in order to comprehend precisely the migrations of the race, the lines of commerce, and the relative positions of contending armies in the field. He delighted in analyzing the motives that influenced the great military leaders in their strategic movements. His taste for this phase of study, which he still retains, induced him to follow the campaigns of the war between the states with great interest, and made him strikingly familiar with the character of the conspicuous men and events of that period. Ancient history he knew well, and he became most closely familiar with the physical features of the earth, its outlines, capes, headlands and rivers, and, having a very impressionable and retentive memory for locality, he even now recollects anything in the topography of a country or region that he has ever examined, and that with marvellous clearness and particularity. In answering a friend's question Mr Huntington said: "I once drove a pair of horses from New York to Vicksburg, and to this day I can almost map out that country as I saw it then, with its hills and valleys, villages and rivers. Yes, I naturally attribute something of my success in railroad building to the interest I take in such things." As his journeyings during the last fifty years have led him into nearly every part of the United States, it is safe to say that there is not a man living whose topographical knowledge of the country is so comprehensive and precise as his.

Always enjoying the perfection of health, and possessing the physique of a young Hercules, there was no boy in school, old or young, who was a match for him in a tussle. But it is stated to his credit that the gift was not abused. The milder traits inherited from his mother impelled him habitually to protect the weak. So abundant was his physical strength that his first impulse in seeing a wrong done was to right it by force. But this proclivity belonged to his youth only. In his later life self-control became a

unknown to him, and all his life he never smoked or used tobacco. Speaking of the former habit he has often said later in life: "I have seen so much of the evils resulting from the use of intoxicants that I consider it the wisest policy to keep them out of the sight of young men, and I believe that society has the right to protect itself by a legal suppression of the traffic. This has always seemed to me a simple question of self-preservation."

He started for New York a youth splendidly equipped for the battle of life—quick-witted, self-reliant, and courageous. He had the muscles of a young giant, and a power of endurance that can be acquired as well by constant and laborious exertion in the open fields of New England as anywhere else, or by any other means, in the wide world. He was ready to take the work that lay nearest to him, and anxious to do it better than anybody else could do it. This has been his ambition, or as he would, perhaps, prefer to say, his policy, all through his life. The poorest part of his outfit was the $175 that he had in his pockets, though the manner in which he earned and saved this nucleus of his future millions reveals the man in the boy. In the college of life, department of economy, by denying himself immediate gratification for the sake of future benefits, by placing reason above appetite, he becomes master, not of the arts, but of himself, which is the highest mastery of all.

In New York young Huntington at once put to a practical use some letters of recommendation that he had received from home. Mr Noble of Harwinton was a well-known customer of certain firms in the city which supplied his store with stock. The old gentleman had taken a great liking for the boy, and helped him with his credit. Looking around for merchandise that he thought he could sell to advantage, he finally hit upon watch-findings, and presenting his letters, received credit for what was to him a large stock of

goods to begin with, amounting in all to about $3,000. In disposing of these goods he worked with such vigor, ingenuity, and persistency that at the age of sixteen he had reason to feel quite satisfied with his gains. The next that his friends knew of him he was in the south, where he took what he describes as "a large number of clock-notes" for collection. These notes he had purchased at a heavy discount from a man who had employed a hundred salesmen to dispose of his clocks in the southern states. In this undertaking he displayed more conspicuously than ever that confidence in himself to do things which are difficult and discouraging to others—a confidence, however, that was reasonable, being strictly in accord with his ability to accomplish. He was very successful in his collections, and the work of turning his notes into money proved an admirable exercise for his faculty of negotiation, while his extensive travelling made him very familiar with the southern country. In fact, he became in a short time better acquainted with the United States generally than, perhaps, any other person of his age in America. He mastered thoroughly the geographical relations of trade between the different parts of the nation, and it was thus that his attention was so early called to the general subject of transportation in its relation to commerce. Besides, also, he was introduced to many phases of character and to a variety of transactions that were new to him, and which being learned practically enlarged his views of men and things. Especially did it bring him into contact with commerce and exchange at a point suggestive of the functions of transportation in the distribution and consumption of the commodities that pertain to human need and luxury.

His wanderings through the south were full of incident and were keenly enjoyed, as he was thrown among people different from those with whom his earlier life had been passed. Fond of the study of

human nature he embraced the opportunity thus presented and profited by it in more ways than one.

Mr Huntington tells many capital stories about his wandering life in the interval between his departure from Connecticut and his twenty-first year. No one could better appreciate the picturesque characters that he encountered in the various states where his business of collecting notes directed him. He was too cheerful and of a nature too happy not to extract sunshine from his surroundings, and too philosophic to waste his energies in missionary labor. His feelings and his judgment were decidedly against slavery. He could not find in his heart or mind any apology for such an institution. In his soul he was grieved to see human beings in bondage. Yet he knew that the negroes in the south, taken as a whole, were in better condition than they had ever been anywhere else. His sympathies went out to them, however, because by instinct as well as by education he cherished individual liberty as a natural and inalienable right, and because he believed the black man could be made a good and useful citizen. His good-will and discriminating charity to them he has amply proved by his acts. Toward the white people of the south he felt no ill-will. He saw that the maintenance of slavery, while it was the basis of refinement and a high sense of personal dignity and honor among the slave-holding aristocracy, tended to demoralization from a lack of incentive to general industry, and consequent idleness and apathy. As between the two he thought slavery a greater curse to the white man than to the negro.

When Huntington reached his twenty-first year he found himself possessed of considerable means, considering his age and the times. He had travelled extensively in the states east of the Mississippi; he was familiar with every county in almost every state, and had a fund of interesting and valuable recollections of personal experiences in many of them; but he now

felt like settling down to steady business and steady profits. He went into merchandising with his brother Solon, at Oneonta, Otsego county, New York. It was a solid establishment, and its business rapidly increased, until it grew to be among the most prosperous in the county. The old farmers of that section were keen at a bargain, and perhaps not quite so scrupulous with regard to their word as they were in respect to their profits, but one member of the firm at least was quite competent to cope with them. A born diplomat, his tact never failed him. On one occasion he went to New York city to dispose of a large stock of butter. His competition with, and final triumph over, the principal dealer in that staple, who brought his shrewdest tactics to bear to crowd him out, would make a good story of itself; suffice it to say that when Huntington got ready to withdraw, it was with his antagonist's respect and with large profits.

In September 1844, Mr Huntington married Elizabeth S. Stoddard, of Litchfield county, Connecticut, a most charming woman of sterling character, of one of the oldest and best families of New England, with whom he lived very happily.

During the years spent in Oneonta the young merchant never frequented the saloons or hotels, but passed his evenings at home. The domestic ties have ever been to him the sweetest. The magnificent physique with which nature had endowed him he took great care of. His great muscular powers gave him the undisputed distinction of being "the best man in the county." He could take a barrel of flour by the chimes and lay it on his shoulder, and every year he sawed and piled up for his own consumption twenty cords of four-foot hard wood, working before breakfast. This exercise brought all the muscles of his body into play, and was better than practice in a gymnasium. Years afterward, when he had attained to a commanding position in the world of financiering, he was accustomed to speak of this habit of regular and hard exercise as one of the

best tonics for the system. When some persons sought his financial assistance in establishing a certain college gymnasium, his reply reflected the influence of the severe school in which his life had been spent. "Tell your young men," said he, "that I will buy enough timber land for them to erect a gymnasium on, and put up the gymnasium myself, on condition that they will cut off all the timber, saw it and split it and pile it up. In this way they can make enough money to pay for a good part of the work, and besides get some good hard exercise such as you say they need, and a good deal better than they can get in a gymnasium." At last accounts he had received no notice of the acceptance of his proposition.

One of the secrets of Mr Huntington's success as the best business man in Oneonta was his excellent judgment of the character of men. He trusted people whom his neighbors would not trust, rarely suing a customer, and generally allowing his debtors to be their own collectors. He adhered then, as in later life, to the maxim, "Trust all in all or not at all," and he found that in the long run it paid, for during the fifty years and more in merchandising he lost less than any of his acquaintances in business. He believes in the observation that a man will fill the niche that you put him in. If you make him feel that you depend upon him, and trust him, he will not disappoint you. If he perceives that you lack confidence in him, your mistrust is apt to be the standard that he will live up to. So stimulating is the approbation of our neighbors that the rogue will strive to live honestly if he is sure of it, while the honorable man has often fallen short of his duty for lack of appreciation.

It was inevitable that the small field for business offered by this interior country town should sooner or later become inadequate and distasteful to a man of Mr Huntington's abilities and spirit, and when, in 1848, the eyes of the whole country were turned feverishly in the direction of California, he made up

his mind that he would judge for himself as to the prospects of that country. In October of that year the firm made a shipment of goods around Cape Horn to California, where the rush of gold-seekers was creating a sudden demand for all sorts of commodities. Huntington went forward by the way of Panamá. He was but slightly affected by the California fever, but he argued that if there was a great deal of money in circulation and a lively market for goods, he would be willing to take his chances of getting a share of the golden shower. How matters stood, he would find out by investigation. He was neither overcredulous nor excited.

When it became known that Huntington was really going to California, many of his townsmen showed the respect they had for his leadership and judgment by going directly to him to induce him to organize and take charge of companies, but he declined, telling them frankly that he preferred to go alone and unhampered. Five delegates from the Delaware district came to tell him that, if he would organize a company, twenty-five or thirty would go from their section, but Huntington turned a deaf ear to all solicitations, and on the 15th of March 1849 he sailed for the Isthmus on the steamer *Crescent City*.

The narrative of a voyage to California via the Isthmus in those early days has an interest far beyond that of the present. Mr Huntington must often think, as he now whirls over the vast fields of his youthful travels in his own comfortable car, surrounded by his family and friends, of the vexatious episodes of that first long and tiresome journey, when it took him five months, instead of five days, to reach the Golden Gate. Thousands made the voyage under all sorts of conditions, and their story is comprehended in the history of the crowd, but Mr Huntington's experience was unique. Hundreds of anxious immigrants, landing on the Isthmus, stampeded across, having their baggage transported by *burros*, or

whatever other means were possible, they themselves going over afoot under the scorching tropical sun. At Panamá multitudes arriving from all parts of the world awaited transportation to the gold-fields. Thrown together in a small foreign city, a promiscuous company of adventurers, far from home and the restraints of society, many fell to drinking and gambling. Weakened by dissipation and the enervating influences of the climate, many succumbed to disease.

Among these painful histories the experience of Mr Huntington affords a wholesome lesson. On the trip he had made an agreeable impression among his fellow-passengers, as a man who had thoughts of his own which he could put into practice. There had been great trouble in procuring boats to ascend the Chagres river, as high as $30 being paid for a single passage, and a committee of three was appointed to go ashore and contract for boats to take about a thousand passengers up the river. Huntington was selected as one of them. Before accepting the appointment, however, he said: "Gentlemen, it is all well enough to go ashore, but I know that as soon as we land everybody will try to hire his own boat. Now I don't want to go on a fool's errand. I propose to contract for boats for as many as are willing to pay ten dollars apiece, and for no others."

The force of his proposition was seen and accepted, and nearly everyone paid his ten dollars into the fund. The committee, on which Hastings of Detroit and a man named George R. Parbert served with Huntington, went ashore and made a contract with the native boatmen to take each passenger and his baggage to Gorgona for $7. This was in United States currency, which was then worth about 27 per cent. more than the Spanish money. Parbert and Hastings went up the river in about the first boat to Gorgona, and engaged horses and mules for transportation, taking the money to be paid out at the end of the route. Huntington remained behind three days

and finally followed in the last boat. Half-way up to Gorgona he was met by some of the returning boatmen, who, on recognizing him, became furious, exclaiming, "*Mucho malos Americanos!*" and demanded back the money out of which they claimed to have been defrauded. Parbert, it appeared, had bought the money of the country on his arrival at Gorgona, left the Spanish currency in the hands of another person to pay for the boats, and had himself gone to Panamá, pocketing the difference of exchange. Pacifying the swindled boatman as well as he could, Huntington wasted no time in reaching Panamá, and with intense irritation confronted Parbert, whom, with scant ceremony, he compelled to give back to every passenger his proportion of the money withheld.

Before Huntington secured passage from Panamá three months had elapsed, and some eight thousand Americans had collected there, many of whom fell ill. Numerous organized companies arrived, with captains and lieutenants, but the members generally quarreled among themselves when they reached the Isthmus. Many came to Huntington to sell out, and he bought their outfits wherever he could see a chance for a trade. His energy and vitality were such that he walked across the Isthmus, twenty-four miles, twenty times, starting early in the morning, making about half the distance before the heat became intolerable, and the remainder during the latter part of the afternoon and night. While on the Isthmus, hearing of a little schooner that was offered for sale at Astabula, he went on foot to see her. With Carmichael, from Montgomery county, New York, he went up the Bogotá river, and walked some 39 miles under an equatorial sun. Arrived there he purchased the vessel and had her loaded with supplies. Carmichael meantime had been attacked with brain fever, and was delirious during the five days' passage back to Panamá. Huntington nursed him all

the way down, but the poor fellow died shortly after they reached Panamá. Many others, and in fact a large proportion of the delayed passengers, fell victims to tropical fever, while Huntington actually gained ten pounds in weight, because, as he said, he always kept himself too busy to be sick. His experience, in contrast with that of others, shows the value of having and working constantly toward a well-defined object. It is a tonic for mind and body.

At last Huntington, with about four hundred others, took passage for San Francisco in the sailing-ship *Humboldt*. He had left New York with $1,200. During his detention on the Isthmus he added nearly $4,000 to that sum. Mr. Huntington's reminiscences of his trip on the *Humboldt* are interesting. It was a strange experience to the young merchant. Of the crowd on the ship there were many restless, nervous, eager men, who, as a rule, had not had any business experience east, and who had been unsuccessful there.

By avoiding every needless expense and observing strict economy, coupled with his genius as a trader in San Francisco, where he remained only a few days, he had increased his capital by the time he reached Sacramento to $5,000, and all expenses paid, while many others arrived there impecunious, or, in the less elegant parlance of '49, "dead broke.' He had made substantial progress towards fortune, and had given unmistakable evidence of his ability to succeed before he reached his destination.

His first study was the commercial geography of the country. The entire business activity was in the mines. The first great mining enterprises had the region now comprising the counties of El Dorado, Yuba and Placer for their field of operation. Mr Huntington, already a student of transportation as a factor in business, saw at a glance that Sacramento was the best point from which to supply the interior market with goods. The distribution from that point

1745967

would be with teams. The country merchants, coming from the mountains to the Sacramento river to obtain supplies, could not afford to leave their teams at that point and come down to the seaboard to purchase goods. To do so involved the expense of sending the goods up by steamer. They could not avail themselves of the cheaper transportation by schooners, because the time of arrival was uncertain, and because by that method too long a period would be required. A merchant establishing himself at Sacramento could avail himself of the cheap transportation offered by the sail-vessels, but the small trader, keeping his store of miners' supplies for the immediate use of miners in the mountains, could not await that slow method of transportation. The rate by steamer was more than three times that by sailing-vessel. The commercial advantage of using the slow craft of the river, which a merchant doing business in Sacramento could afford as against the more costly and more expeditious method of steamer navigation, then the only resort of the small trader, was at once perceived by Mr Huntington, and influenced his decision in favor of Sacramento as the base of his proposed mercantile enterprises.

But in order to get as comprehensive a view of the resources of the country as possible he made a trip to the mines. A brief investigation confirmed him in his first opinion and, also, thoroughly satisfied him that the life of a miner would not be either congenial or advantageous to himself.

Very many pleasant incidents are even to this day related by the old residents of Sacramento, illustrative of the peculiar tact and the restless activity of Mr Huntington to forecast and take advantage of commercial contingencies, which soon placed him in a commanding position among business men, and which, later, distinguished the house which he founded, that of Huntington and Hopkins.

He went forward from the very beginning, discov-

ering and developing bonanza after bonanza, where others either slept upon or had not the faculty to perceive and grasp the opportunities about them. While great fortunes were being made and lost in uncertain mining ventures, his investments, based upon the principle of the ebb and flow of trade, upon the law that the pendulum having swung to its limit on one side must rise pretty nearly to the same hight on the other, were in every instance successful.

In the early days of California, in the absence of railroad and telegraph communication, speculative shipments were frequently made, causing extraordinary variations in the prices of staple articles. His sagacity enabled him, in many instances, to take advantage of these fluctuations with startling strategy and magnificent profits. For instance, when shovels, an indispensable article in mining, were a drug in the market, he would buy up, on their arrival, all that were offered, and as storage was very scarce and dear, others hesitated to follow his example. With the recurrence of the demand, his would be found the only source of supply, and himself absolute master of the situation: in other words, he was a persistent and active buyer of shovels when nobody else wanted them, and the only seller when everybody else wanted them. By eternal watchfulness and careful study of the market, he always had on hand a sufficient stock of potatoes to meet all requirements at remunerative profits; while others, taking the current of trade at the wrong time, found themselves, as a rule, either overstocked or understocked. When cargoes of potatoes began to come in from remote islands of the sea, he stepped out of the trade for the time; those who were not warned went on buying and suffered. In the purchase and sale of powder in large quantities, shiploads of hard bread, and almost every other necessary commodity, all varying extremely in price, as well as small articles for which he could create a value by handling, his foresight and adroitness, joined with carefulness and hard work, were scarcely less

than marvellous. In 1854 his net gains would have been considered a fortune.

Yet, in the midst of these large transactions, there is a lesson to be learned from his punctilious regard for business principles as regards details. "Watch the small economies," was the motto of his life. Says he: "I have always looked after the little things of my business; weightier matters will take care of themselves. I told one of my clerks in Sacramento to pick up a four-penny nail that had been lying on the floor for some time, remarking to him, "The time taken by you to pick it up is worth more than the nail, perhaps, but if you don't save the four-penny nail, pretty soon you will attach no value to the six-penny; next the eight-penny will be swept out, the ten-penny will follow it, and finally you will not care for spikes."

Mr Huntington divided his time, in the earlier days, between his principal business house in Sacramento and his three trading-posts at Weaver creek, Martheness creek, and Mud springs. He frequently traveled by night, as well as by day, back and forth over the intervening country, which was beset with the dangers peculiar to a new and comparatively lawless mining community.

He was seemingly unconscious of the risks he incurred, especially as at times he carried large sums of gold about his person. The consciousness of his own great strength, coupled with characteristic discretion, relieved his mind of every fear. In one case of emergency he walked fifty-four miles in one night, carrying with him forty-five pounds of gold dust.

Before passing to the formation of the historic house, the good name and wide scope of which are still familiar to the Pacific coast under the present title of the Huntington Hopkins company, a feature of Mr Huntington's early life on this coast may be noted, as showing him to have been not only a wise business manager, but also a true friend

of young men. Sacramento in 1850 numbered 12,000 souls, a population made up almost entirely of high-spirited adventurers and sanguine men from twenty to thirty years of age. There were only two families in the place, that of William H. Watson and Dr Birdsall. Home life was unknown. On many of the most important corners was a gilded palace of infamy. Gambling and drinking were almost universal. There was no evening resort in which these body and soul destroying vices, and those evils which they lead to, did not constitute the sole recreation or pastime. Few pioneers withstood altogether the allurements of dissipation that environed them. The young man who possessed the moral strength to resist the temptations that beset him on every hand was an anomaly as rare as was the presence of a pure woman. Cut off from almost every restraining influence many plunged into a delirium of speculation which ignored to-morrow, staking all upon the issue of to-day. Sacramento, like the rest of California at that date, presented a spectacle of headlong abandonment and dissipation, her total recovery from which, even by this time, would not be possible but for the marvellous vitality and recuperative energy of Americanism. Such were the conditions of Mr Huntington's introduction into California life. It is an attestation of the solid and rational moral principles upon which he fashioned his behavior that he walked through this atmosphere unharmed by the contagion with which it was poisoned. And the moral law that was wholesome for him in his New England training, he applied rigidly but kindly to all his business household. It was a part of his contract with every one of his employés that they should remain in the store from supper time until breakfast. In the upper story they were provided with the most comfortable lodgings, and the meals served for them and himself at the same table in these quarters were superior to any that the restaurants of Sacramento could furnish.

His household were supplied bountifully with food for the mind also, for he deemed it a good investment to provide a first-rate general library and a number of newspapers, with which his clerks might while away the evenings profitably in company with himself. For years his store was probably the only one in Sacramento that remained closed on Sundays. This rule he always observed, not less because he deemed it a measure of health and good policy, than because he retained a sacred regard for the observance of the day. The effects of this wise régime, by which a cheerful home was provided for many young men in his large establishment, in a community of general homeleness, can be better imagined than described. Suffice it to say, briefly, that a number of the most worthy business men and citizens of California who were schooled to usefulness and integrity under his roof, acknowledge a profound obligation to their discriminating and practical benefactor. That he prospered marvellously is not to be wondered at. He commanded success, and he was entitled to it. His course led up legitimately to the point of founding a commercial house which became a prominent factor in the greatest feat of commercial and social development of its kind that the world had ever known.

As the result of his ceaseless and well-directed effort we have the great hardware house at 54 K street, and later the still larger establishment in San Francisco. Next door to him Mark Hopkins kept a store. In this way the two men became well acquainted, and formed a lasting attachment for each other.

Mr Hopkins had formerly been in business in Lockport, New York. He and E. H. Miller, Jr, the present secretary of the Central Pacific railroad company, formed a partnership at an early date at Sacramento. The firm of Hopkins and Miller was dissolved by the retirement of the former from business in 1853, when he returned east, but drifted back again to Cali-

fornia. Hopkins then said that the only thing that would ever induce him to go into active business again would be a partnership with Huntington; and as this was agreeable to both, the firm of Huntington and Hopkins was formed in May 1854, and the two friends remained associated in business for twenty-four years, until the death of Mr Hopkins.

There were never two men better fitted for each other. They were friends in the truest and deepest sense, and it is pleasant to hear Mr Huntington speak of this long partnership.

"During this period," he says, "we did a business amounting to hundreds of millions of dollars in hardware, railroad building, and various other enterprises, but not an unkind word, so far as I remember, ever passed between us. Mark Hopkins was one of the truest and best men that ever lived. He had a keen analytical mind; was thoroughly accurate, and took general supervision of the books, contracts, etc. He was strictly the office man, and never bought or sold anything. I always felt when I was in the east that our business in his hands was entirely safe. I recollect when our articles of copartnership were drawn up and signed by us, each took a copy and placed it in his private safe, and there these copies remained unexamined and unread by either of us during our entire association. I have never seen mine. I believe it is in the old safe in Sacramento yet."

Mark Hopkins told an acquaintance that they had never owned a dollar of stock in a mine, never sent out a drummer to get business, and had never sued a man for debt. Notwithstanding the flush times, a very large percentage of the business done by the house of which Mr Huntington was the head, was on credit. The fact is recorded, and one which speaks highly for the commercial integrity of early Californians, that the minimum of its book accounts were lost; that while mining enterprises were character-

ized by great vicissitudes of fortune, sooner or later these accounts were nearly all collected. This experience, however, was not common to all business houses, but was rather an evidence of superior judgment and care.

The population of California had been drawn about equally from the free and slave sections of the nation. It was a commingling of elements, therefore, directly and irrepressibly antagonistic. The first issue which confronted the suddenly acquired population of California, was whether the state to be formed should be free or slave. The influence of early associations in the establishment of canons of thought was in this case thoroughly exemplified. Young men from the north, who, when at home, were perhaps in a measure apologists for slavery, at once took position in favor of the institutions in which they had been educated; and likewise, young men from the south, who when at home entertained many doubts as to the justification for the peculiar institution of their native states, were as readily classified by early associations and home sympathies with the institutions of the south. Mr Huntington, by instinct a lover of freedom, espoused the free state side of the controversy with characteristic energy and enthusiasm.

Edward Baker, the leading champion of the free state cause at that time, found in the firm of Huntington, Hopkins, and company a reliable source of financial supplies. To the leading men of the free state party Mr Huntington was bound by the strongest ties that bind men in a common cause. He was mainly instrumental in the establishing, maintaining and shaping the policy of the first out-and-out republican newspaper in the state, *The Times*, James McClatchie, editor, and published from the quarters gratuitously furnished him in the upper story of 52 K street, Sacramento.

In the first campaign after the admission of the

state, the general party alignment taking form in consonance with party divisions in the eastern states was whig and democrat, the latter party being, however, as much under the domination of southern sentiment as the former. There was scarcely a perceptible difference between the professed principles of the two parties. But the free soil movement in the eastern states found an echo in California, and the irrepressible conflict of the time was slowly but surely engendering those forces which were eventually to relegate the whig party into oblivion, and give birth to the great national republican party.

A stand was erected on which speeches were to be made in advocacy of the formation of this party, committed to the doctrine of resisting the extension of slavery, and by logical sequence to the doctrine of its eventual overthrow. The time for the meeting was appointed; but the crowd which the occasion called round the platform was so antagonistic that it was overturned, and the small crowd of sympathizers routed. The attempt to hold a republican or anti-slavery meeting was on each occasion frustrated. A like meeting, appointed at Folsom, however, was attended with better success. Mr Huntington had rallied a contingent of supporters, and the right of free speech was vindicated through his vigorous leadership. The southern whigs were less pronounced in favor of the perpetuation of slavery than democrats from the same section. Some of the most brilliant supporters of the slavery cause, however, were southern whigs, but the issue of slavery and anti-slavery was generally made between northern and southern men. These matters are referred to here chiefly because they constitute the genesis of an intimacy between C. P. Huntington, Mark Hopkins, E. B. Crocker, Charles Crocker, and Leland Stanford, which culminated in the enterprise with which these names are inseparably associated.

By the period of 1855 the agricultural capabilities of California began to be recognized. The American

occupation of the territory had continued long enough to make the peculiarities of the climate partially understood. It had begun to be perceived that the period of verdure in the broad valleys and fertile hills west of the central axis of the Sierra Nevada was longer than a like period in the northern, middle, and western states. The great diversity of horticulture, so favored by the clemency of the climate, had begun to be seriously considered, though no one then dreamed of its capability as understood to-day. The settlement, which up to the time of the recognition of the natural resources of the country had been regarded as nomadic, began to lose its ephemeral character, and the American population turned its attention seriously to the great question of laying the foundation of a civil and social fabric.

Perceiving that the discovery of gold and the resultant hegira from the eastern states was soon to become a mere incident in the settlement of a country possessed of really great natural resources, the thoughts of far-seeing men were turned to the question of establishing cheap and expeditious communication with the main body of civilization of our country.

In the minds of a few great spirits the practicability of building a railroad across the continent began to take precedence of all other subjects. To whom the honor of first proposing a plan of a railroad from the Mississippi river to the Pacific ocean belongs is hardly known reliably. It has been recently claimed by Mr Smalley, in his history of the Northern Pacific railroad, that as early as 1834 Dr Samuel Bancroft, of Granville, Massachusetts, advocated the construction of a railroad from New York to the mouth of the Columbia river by direct appropriations from the treasury of the United States. In 1836 John Plumb, a Welshman by birth and civil engineer by profession, called the first public meeting at Dubuque, Iowa, for the purpose of agitating the sub-

ject of building a transcontinental railway, and in 1837 Dr Hartley Carver published in the New York *Courier and Enquirer* an article advocating such a construction. But the first person to formulate a practicable scheme to bring the project into public notice was Asa Whitney, who, between the years 1844 and 1850, agitated it in addresses to legislatures and public meetings, his proposition being to construct a railroad which should begin at Prairie du Chien, on the Mississippi river, cross the Rocky mountains at South pass, and have its principal terminus on the Columbia at Vancouver, with a branch from some convenient point west of the mountains to San Francisco, his principal object being to make the route of Asiatic commerce to Europe through the United States.

In these later days, when travellers accustomed to luxuries at home can almost duplicate those comforts while crossing the continent in magnificent vestibule trains in five days' time, it is interesting to look back and note in what light the possibility of such an accomplishment was regarded by the practical men and political leaders of thirty years ago. The subject was discussed freely in the session of 1842-3, but while some declared their belief in the practicability of the scheme others derided it, and among them Senator McDuffie, who opposed the project and ridiculed the idea that steam could ever be employed to facilitate communication across the continent. In the fall of 1849 the Pacific Railway convention at St. Louis, presided over by Stephen A. Douglas, condemned Whitney's project. Senator Benton, of Missouri, earnestly advocated, however, for many years a transcontinental railroad, but it was not until the gold excitement brought to California a large influx of population from the Atlantic and Western states that the matter was brought up so prominently before the government that its discussions resulted in positive action. In 1851 Senator Gwin gave notice

in the senate of a bill for the construction of a Pacific railroad, and in 1852 Senator Douglas reported a bill on the same subject. On May 1, 1852, the legislature of California passed an act granting the right of way to the United States for railroad purposes, and in March 1853 congress made its first appropriation, $150,000, to defray the expense of the necessary surveys, and the same year parties were organized and sent out by the war department. In 1854 congress made two more appropriations, of $40,000 and $150,000 respectively, and three more parties were sent out. Both the republican and democratic conventions adopted resolutions in their platforms of 1856, pledging the parties to aid in appropriate legislation on this subject. Prior to 1860 the legislatures of eighteen states had passed resolutions in aid of a Pacific railroad.

The subject continued to grow in importance in the minds of the nation's legislators, and other influences were at work to make it a measure not only of advantage but of necessity. The first gun was fired on Sumter, followed soon by the battle of Bull Run. California might well have been forgotten then, but the attention of the country was called to its distant possession through the arrest on the high seas of Mason and Slidell, who were on their way to England and France as the accredited representatives of the confederate government; for immediately afterward the harbor at Victoria, Vancouver Island, was occupied by the Asiatic fleet of Great Britain, and the fleets of Russia made their appearance at San Francisco. It was then that the leaders of the nation awoke to the startling fact that the United States government was powerless to hold its golden possessions on the Pacific coast in the event of a collision with any great foreign power, to say nothing of the danger of civil commotion because of the lack of facilities to throw troops and supplies into California on short notice. Meanwhile the shipments of gold

from California, though sorely needed to maintain the national credit, had steadily fallen off, much of it being diverted to England, on account of the risk of transportation caused by confederate cruisers and the insurance rates went as high as fifteen per cent to cover war risks.

The exciting debates in the senate during these eventful years all evidence the temper of the nation and its realization of the urgent necessity of establishing a transcontinental railroad. In 1862 the war, navy, interior, and postal departments were paying for transportation across the continent more than $7,000,000 per annum.

Meanwhile in the far west, while the agitation of the subject of a transcontinental railway had been less general, perhaps, the desire for the accomplishment of such a result had been growing more and more intense as the din of war grew louder. News reached the coast slowly and unsatisfactorily. California seemed in these times of profound excitement almost out of the world, so that the conception of a transcontinental line was looked forward to with a feeling hardly less than ecstasy. The huge and bold project developed in the minds of a few powerful natures there into actual plans and calculations. It is certain that Mr Huntington, as soon as he reached the west coast in 1849, perceived the tremendous advantages that would accrue from a railroad connecting California with the east. The project grew more and more feasible and attractive to him as the years went on and the discussions on the subject began to take root in the enterprising minds about him.

From 1850 to 1860 the population of the far western states and territories had increased from a mere handful to more than a half million persons, and in the whole area of 2,000 miles from the Mississippi to the Pacific ocean there had been built only 232 miles of telegraph and 32 miles of railway. Mr Huntington, accustomed all his life to dealing in the things that

people must have, saw clearly the benefits that would accrue to the people of the United States when easy and quick communication should be established with the Pacific coast, since it would make the United States an exporter of food and bring under cultivation such portions of the magnificent country west of the Missouri river as were suitable for agricultural and grazing purposes. It has been said that the patriotism of the present day is a tame sentiment compared with that which actuated the citizens of the republic thirty years ago—a mistaken idea, which arises from the fact that the necessity for its expression does not exist in such degree in times of profound peace as in times of threatening and danger; but in those days Mr Huntington, while mindful of the personal emoluments that might and ought to result from an achievement of such magnitude as the Central Pacific railroad, entertained a feeling of patriotic pride in its success, and was willing to take the great risks involved. In the agitation on this great subject that ensued in California the southern men naturally favored a southern line, while the northern men insisted upon a northern line. There had been for years a lively dispute as to where the road should run, but it was a dispute that up to 1860 resulted in nothing. Huntington and Hopkins were now a wealthy firm, perhaps the strongest in California. They had not only accumulated what were fortunes for those days, but their credit was unimpeachable, and their business brought them into contact with men from all parts of the state, and made their names and standing well known in the east. They had become absorbed in the problem of how to get a road across the Sierra Nevada.

Theodore D. Judah was an engineer who was so enthusiastic on this subject that he was called Pacific railroad crazy. One day he startled the people of Sacramento by announcing without qualification that he had found a long and easy ascent of the mountains

by way of Dutch flat which was practicable for a railroad. He wanted subscriptions to enable him to make a reconnoissance, and finally called meetings for the purpose; but in the midst of his work, after many had promised aid, there came the presidential election of 1860, and with it more and more startling rumors of war. People stopped giving, and in the presence of the more absorbing topic lost for the time all interest in the project. In 1861 Judah went to Sacramento and again began his agitation on the subject. A meeting of the citizens at the St. Charles hotel followed, and at this discussion Huntington was present, but a listener only. Judah assured the meeting that he had made many reconnoissances over the mountains and had found all the lines rough, but would like to make a thorough survey. Subscriptions were tendered of small sums of money, barrels of flour, and sacks of potatoes. Huntington subscribed nothing. Several approached him and said, "Look here, Huntington, you are the man to give to this enterprise." He had already donated something to a wagon road and an overland telegraph; but he had little faith in Judah's methods. He did not believe that a transcontinental road could be constructed by contributions to a picnic, or a charity entertainment. As he left the meeting he quietly drew Judah aside and remarked to him, "If you want to come to my office some evening I will talk with you about this railroad." Judah called the following evening, and the matter was fully discussed, with the result that Huntington agreed to secure six men who would pledge themselves to pay the expense of a thorough instrumental survey across the mountains and to furnish him the money to make it, which Judah then estimated would cost about $35,000; but Huntington distinctly told him that he would agree to nothing further, only when the work was done he would look ahead and see what there was in the enterprise. This meeting between financier and engineer may be termed in a sense the origin of the Pacific railroad.

Many a night after that Huntington and Hopkins sat up long past midnight, in their rendezvous over 52 K street, discussing the outlook. Hopkins was very much in doubt whether the gigantic difficulties presented by the Sierra Nevada could be overcome, but Huntington was in a mood to try it. He saw and talked with Leland Stanford, who agreed to join the enterprise, and pay one seventh of the whole expense of a survey. Judah also came into the agreement, as well as L. A. Booth, Charles Marsh, and James Bailey, and at last these seven men bound themselves to do the initial work.

Early in 1861, as the result of carefully perfected plans long discussed, the Central Pacific railroad company of California was organized under a general law of the state, with a nominal capital of $8,000,000, to construct a railroad from Sacramento to the eastern boundary of the state of California, and the five men who organized it were Huntington, Stanford, Mark Hopkins, Charles Crocker, and James Bailey, E. B. Crocker coming in later, Mr Booth having retired.

The surveying party decided at last upon the Dutch Flat or Donner Lake route, which contemplated an ascent of more than 7,000 feet in less than 100 miles, although the difficulties staring them in the face were appalling. Judah had made what Huntington called a superficial estimate. He had got too much earthwork in the first place, and not enough rock. Huntington went over his figures and made such changes in the classifications as his judgment dictated. The accuracy of his figures was borne out in the final cost of the work.

Congress was now in session, and Huntington and Judah started for Washington, armed with maps and charts, to render what assistance they could to the friends of the measure in congress, which at its session of 1861-2 was agitating the subject.

"The idea of a Pacific railroad," said Mr Huntington, in narrating the story to a friend some years ago,

"originated when I was a boy, but the projectors of the Central Pacific did not at first fully entertain such a gigantic undertaking. They did not know definitely where they would build to, but expected that their road would be a part of the transcontinental line. To those who had considered such an enterprise the Rocky mountains had seemed to offer no serious obstacles, but the Sierra Nevada had always been a formidable barrier in their way. I felt that, if they were once crossed, our road would then become the nucleus of a Pacific system. I used to say to my immediate associates, 'Don't let us talk about a Pacific road. Let us always keep in control what we build, and pursue such a conservative policy as will not bring us into financial difficulties or harm our credit. We will build continuously until we meet a road coming from the east, even if we have to build to the Missouri river, but let us go slowly, so as to be sure that we shall own what we build.' And had I then known as well as I do now the character of the country east of the Sierra Nevada, I would have arranged from the start to build to the Missouri river. The desire for a transcontinental railway was general. Everybody on the west coast wanted better facilities for returning to visit their homes in the east. The water line was objectionable to a great many. In April 1851, I went to California with my wife and sister, paying $1,500 for three tickets, and ten years later a single fare was $250. Accommodations were indeed poor, compared with those of the present time, and there was the danger of delay and sickness.

"Senator Benton and other prominent men were strong advocates of a railroad to the Pacific coast, in order to bring California closer to the eastern states. The depredations and loss of life by Indians, while the emigrants who traversed the 2,000 miles of plains in wagons, was a serious consideration. Between the Missouri and Sacramento rivers, a distance of 1,800 miles, there was not a single navigable stream, and a

vast portion of this territory was unknown and uninhabited except by savages."

While in Washington looking after the Pacific railroad bill, Mr Huntington carried a weighty responsibility. From his associates, who had dared to undertake with him the huge enterprise, he bore a power of attorney to do for them anything whatever —made him their plenipotentiary to buy, sell, bargain, convey, borrow, or lend without any condition except that they should share with him in everything. A more momentous trust was perhaps never confided to a single man. With what fertility of resource, resolution, and persistence he showed their faith in him well grounded is now recorded in history.

The result of his work on the threshold of the undertaking, in the national legislature, due largely to his personal efforts among the controlling minds at Washington, is summed up in the act of congress of 1862 and 1864. By this act the Central Pacific railroad company entered into a contract with the government to construct a railroad and telegraph line from the Pacific coast at or near San Francisco or the navigable waters of the Sacramento river to the eastern boundary of California, having the right to build eastward until it met the Union Pacific, the Union Pacific having the right to build westward until it met the Central Pacific. In aid of such construction the United States agreed to donate every alternate section of public land, designated by odd numbers to the amount of five alternate sections per mile on each side of the road, the title to said land to be vested in the company when it should have completed forty consecutive miles of railroad and telegraph, and on completion of said section the secretary of the treasury should issue to the company bonds of the United States, payable thirty years after date, bearing six per cent interest to the amount of the bonds per mile; but from the western base of the Sierra Nevada the bonds to be issued should be $48,000 per mile for 150 miles east-

wardly, and between the mountainous sections at the rate of $32,000 per mile, the company to complete fifty miles of said railroad and telegraph line within two years of filing their consent to the provisions of the act, and fifty miles each year thereafter; the entire line between the Missouri river and the Sacramento river to be completed so as to form a continuous line of railroad, and ready for use by July 1, 1876.

The act provided that the issue of bonds and delivery to the company should *ipso facto* constitute a first mortgage on the whole line, its equipment and property of every description. The grants of lands and bonds were made upon condition that the company should keep its line in repair and use, and at all times transmit despatches, transport troops, mails, and munitions of war, supplies and public stores for the government whenever required to do so by any department; and that the government should at all times have the preference in the use of the road at fair and reasonable rates, not to exceed the amount paid by private parties for the same kind of service, and compensation for such services should be applied to the payment of the bonds and interest until the whole amount should be fully paid; and after the completion of the railroad, until both bonds and interest were paid, at least five per cent of the net earnings of the road should be applied annually in the payment thereof; but there was an implied understanding between the two parties to the agreement which is very clearly shown in the debates of congress during this period, and in the undercurrent of popular opinion regarding this enterprise. This understanding was, that, except for the five per cent of net earnings to be paid annually after the completion of the road, the government would look only to the performance of that portion of the contract by which the railroad company undertook to do its telegraph business, and transport its mails, troops, and munitions of war and public stores, for the repayment of the principal

and interest of the bonds. As a matter of fact, from an examination of these debates, it would seem evident that not a single vote was cast for the act of 1862 with any expectation that the government would receive from the railroad companies in reimbursement one dollar in addition to the five per cent and the services rendered in transportation. This becomes an important consideration in view of the stand which Mr Huntington took in later years, when the incalculable risks and difficulties connected with the construction of the Central Pacific railroad, and the magnificent services performed by the daring actors in this stupendous achievement, had been apparently forgotten by the nation's legislators, who, ignoring the spirit of the contract, demanded its literal fulfilment.

In 1860 Samuel R. Curtis, then chairman of the Pacific railroad committee in the house of representatives, reported that the aggregate amount which was paid by the government for the transportation of mails and military and naval stores from the Mississippi river to the Pacific ocean reached more than $7,000,000 a year, and in the very year of the passage of the act, 1862, Mr Campbell of Pennsylvania, then chairman of the house committee, reported that the amounts which the war, navy, Indian, and postal departments were paying for transportation across the continent aggregated more than $7,300,000 annually, which computed at six per cent would represent a capital of $125,000,000. Henry Wilson, senator from Massachusetts, said he would be willing to donate that sum, supported the railroad bill, and asked whether the company would guarantee to build the road if the government would grant it $100,000,000 outright! While urging the passage of the bill Mr Huntington gathered statistics to show the cost to the government of policing the country so as to protect the emigrants, and also care for the Indians, on the line of the proposed road. This expense was $16,000,000 during the year that General Johnson

was at Salt Lake. He showed that Wells, Fargo, and company were paid $1,750,000 per year for carrying mails; that Ben Holliday received large amounts, and that Russell and company had one contract amounting to more than $7,000,000 for transporting supplies to Salt Lake City. He made the point that after the road had been built the country would be settled rapidly, but that under existing conditions it would long remain a wilderness. Troops could be transported in seven days by rail, while Lewis and Clarke were more than a year in reaching the Pacific ocean. This was an important consideration after the civil war had commenced, and doubt was felt in regard to the stand that California would take. He showed, further, that if the road were built through the aid of a loan, and the government paid interest on the amount, the reduction of its military expenses would more than offset the interest. Mr Huntington made it clear to members of congress how taxable property would be developed, how settlers would come in, and how easily the Indian problem would be solved, and tragedies of the plains made a thing of the past. A consummation devoutly to be wished, for in the years 1864 and 1865 the quartermaster's department spent over $28,000,000 for military service against the Indians, these two being a portion of the thirty-seven years in which Indian wars cost the nation twenty thousand lives and more than $750,000,000.

The cost of the Mormon war in Utah was frequently alluded to in the debates preceding the act of 1862 and that of 1864, and while the records of the war department do not disclose any tabulated statement giving the amount actually paid out, it was estimated in army circles, soon after the termination of the campaign, that the entire expense to the government was not much less than $30,000,000, more than the entire amount of bonds loaned to the Central Pacific. Certainly this expedition made the fortunes of the Mormons, who sold for the use of the troops

their spare agricultural products at enormous prices, and acquired the outfit of the expedition with only a small outlay, a financial result which induced Brigham Young to say that he had made war successfully on the United States. It is needless to say that, without the building of the Pacific railroads, the control of the Mormons would have been as costly as the subjugation of the Indians.

The famous bill of 1862 finally became a law; and while its passage, with all defects and inadequacies, which were foreseen by none so clearly as by Huntington himself, was a triumph for him and his associates, he was not unduly elated. It was unlike him to exult over what was a mere beginning, however propitious, or yet to commemorate with pomp and ceremony the complete success of an undertaking. The accomplishment of a great end was of itself a sufficient gratification.

Thoroughly progressive in his ideas, he found but slight pleasure in looking back. Things done might be good enough, but in his policy the greatest value of an achievement was the point of departure it affords for new work. He saw no more importance in throwing up the first shovelful of earth or in driving the last spike than in throwing up any other shovelful of dirt or in driving any other spike during the progress of the work. His despatch to the other members of the Sacramento syndicate is characteristic, "We have drawn the elephant: now let us see if we can harness him up."

With the attainment of the first great result sought by Huntington, the passage of the act, his labors at Washington being for a time at an end, he hastened to New York to take up the still more difficult part of his work, that is, to inspire confidence in others so as to get them to assist in the great work. His preliminary fight had been to overcome opposition to needed legislation; now the struggle was to overcome the inertia of doubting capitalists.

Under the act forty miles of the road were required to be completed and accepted by the government before the guaranteed aid could be secured. Hence money had to be obtained from some other source before contracts for material could be entered into. The moneyed men of New York, many of whom regarded the scheme as visionary, were not disposed to aid the work until some parts of it were in operation. Stock subscriptions came in with painful slowness. Huntington had faith larger than a grain of mustard-seed. But he could not move the mountain this way. With all his honesty of purpose, as the time passed on, with all his rare ability in finance and negotiation, with all his persistency and eloquence, he could find no support for the enterprise in the skeptical minds of the money kings. There was never a time, however, when he was at a loss for an expedient. He boldly announced that he would not surrender a dollar of the company's bonds for anything but cash; also, that he would pay cash for all materials that he might purchase. In order to support himself in his position, he made himself and his four associates, Leland Stanford, Mark Hopkins, Charles Crocker, and E. B. Crocker, personally responsible for the whole amount, whatever it might be, knowing that they had the power to make it good. In other words, they deliberately pledged their private fortunes to the construction of the road. On this basis they went to work, from the beginning always keeping within their ability to meet every obligations. And he is known to have said that he would not sell his securities unless he got a sound price for them, for only by so doing could he make them good. At no time was their pay-roll thirty days in arrears.

Huntington's first negotiation of bonds was with Boston parties. Flint, of Flint, Peabody, and company, an old shipping firm there, came to Huntington in San Francisco, and proposed, on the ground of his reputation as a negotiator, to help him in selling a

million and a half of the bonds. Huntington had understood that Flint was connected in some way with a sale of bonds on Wilson's road at Marysville, California, which really was not worth anything, and hesitated; but being assured by Flint that he was not mixed up in that matter, Huntington told him if he would sell the million and a half he would give him $20,000. After that Huntington would every now and then spend a day in Boston, to learn how matters were progressing, but nothing seemed to be done. Flint said things were working very nicely, but it took time. It took so much time that it finally wore out Mr Huntington's patience. He began to investigate on his own account, and found that Flint had been connected with the negotiation of the bonds of the road from Folsom to Marysville, was consequently not in good standing, and could accomplish nothing.

It was galling to him to learn this, and he went to Flint straightway. "Mr Flint," said he, "we have been backing and filling long enough. You say you know all the capitalists, but you haven't sold anything. I was to give you $20,000 if we succeeded in selling the bonds. Now you have not the influence you claim to have, and I want you to release me, because you can't fulfil the agreement on your part."

"Oh! I couldn't do that," said the polite Mr Flint. "You will if you are an honest man," said Huntington, sharply. "You can't help me any, and I am going to sell those bonds." "You can't sell them now," Flint interjected. "Come, I'll tell you what I'll do," replied Huntington. "I'll give you twenty of the bonds, and you shall not offer them to anybody until I have negotiated the rest. As you are not able to help me I'll dispose of them myself." Flint readily agreed to this, but still insisted that the bonds could not be sold at that time. "Give me a hundred out of your safe!" said Huntington, and taking them in his hand he marched out.

"I was just mad enough to be interesting," he continued, in telling the story, "and in less than an hour I returned with all the bonds I had taken out at par and interest."

On another occasion Huntington went to Lombard, Ames, and others, wishing to interest them in his bonds, offered them one half at 85 and the remainder at 1.15. After many consultations, they told him they had made up their minds that they could give but 60 cents. Huntington was mad, as he describes it, "although," he adds, "I wasn't quite as mad as I appeared to be. I only said: 'Now, gentlemen, you have kept me dancing attendance nearly four weeks. I told you my price, and you said you thought we could deal, and now you offer me 60 cents. I tell you, gentlemen, you can't afford to buy them at that price, as they cannot be made good with the money they will bring. Give me my price and I will give you as good a security as the government's. Give me your price and you have not made a good purchase.' I got madder and madder as I kept on talking, and said something perhaps I ought not to have said to let them know how long they would have to wait before I would come to their terms. Oakes Ames said: 'Huntington, give us a little time to talk it over.' I said: 'I'll give you a whole year if you want it!' Well, they came back in twenty minutes and took half of the million and a half, and later some of them paid as high as 1.42½, so that the whole loan averaged considerably over par.

Mr Huntington felt that he was right upon principle, apart from the mere satisfaction of disposing of his bonds. He has ever been consistent in holding bonds on new roads at high prices, knowing that in this class of work it is almost impossible to make a sound security that is sold at an unsound price. He has been known to say: "I never like to offer a bond at $25,000 when I know it is going to take $40,000 in bonds to complete the road," as no party

would be willing to advance $15,000 a mile to complete a road when there was $25,000 per mile ahead of such advance. It must be admitted that in such cases his judgment has proved to be not only correct, but the wisest possible course financially for the owners of the road and those investing in its securities. He never regarded the technical completion of a railroad as the actual end of the task, for he knew by experience the endless disasters that may befall a new road-bed, and call for continual and often immense expenditures in reconstruction or renewal.

Mr Huntington's views on this matter are well known in railroad circles. On the occasion of a dinner, at which a number of railroad men were present, Andrew Carnegie relates that one of the guests was congratulating himself on a road he had just completed, when he, Carnegie, rose and said: "A new road is the devil."—*Huntington.*

Huntington's labors were not confined to raising money in the east. The responsibility devolved upon him alone of expending immense sums in the purchase of rails, locomotives, and all other materials for the new road. Some idea of the tremendous outlay which was involved in the construction of the Central Pacific may be gathered from a few statistics concerning the ultimate cost of these supplies.

This company labored under great disadvantages, which were not shared by the Union Pacific. The work was separated by two oceans and 18,000 miles from the manufactures and the place of their use, over the route they had to take by the way of Cape Horn. Owing to the delays and dangers of the sea, it could not predict within months, if at all, when the materials for its construction would arrive from the east. On account of the great distance around the Cape some supplies were sent across the Isthmus; and being at such a distance from its base of supplies, it was compelled to keep material for nearly a year's construction constantly in transit. It had upon the

ocean, for the greater part of the time it was engaged in the construction of its road, materials valued at from one to three millions of dollars, against which a high rate of interest was running. As the company was confined to the use of American rails, the prices rose during the course of its construction 100 per cent.

The circumstances of one of his notable purchases of material are as follows: Dr Durant having sent out a printed circular calling for 60,000 tons of rails to be delivered in six months for the Union Pacific, the iron-makers met in New York and discussed the situation, with a view of taking advantage of the demand to advance prices. They estimated that the Union Pacific would want 60,000 tons, the Central the same, the Kansas Pacific 40,000, the Sioux City 10,000, and the Central Branch 10,000, 180,000 tons in all. Now was their opportunity. This was outside of the regular demand, while the combined capacity of all the American mills was only 250,000 tons a year.

Mr Davis, a middleman, controlling the largest quantity of rails, asked Huntington how many tons he would require during the year. Huntington saw what was in the wind, and replied promptly: "Don't talk to me, Davis; for I am mad. I have rails on the way to California to lay 150 miles, but my people write me they cannot lay more than 100 miles this year; but they can, and I believe they will, lay the 150 miles." Davis replied that Durant of the Union Pacific intended to lay 60,000 tons, but Huntington only laughed as he answered: "You know he will do nothing of the kind. The Kansas people are in litigation. They won't want a rail. Sioux City won't start to build until Governor Blair has extended his Cedar Rapid road far enough out to transport the material for the Sioux City branch. The Central Branch is not organized, and there will be nothing done on that this year." Subsequent events proved that all he said was true.

Davis went back to the iron-makers, and it was decided not to advance the price of rails. But some few days after, Mr Huntington called for prices from the different rolling-mills, each for about such an amount as he thought they would bid upon, and as soon as he had heard from all the parties he telegraphed to each, and so in one day bought sixty thousand tons. In this and in other instances of Huntington's strategy he used against his competitors the weapons of his wit. It was a species of warfare, in the emergencies of which the success or failure of the great enterprise which he carried upon his shoulders depended largely upon his ability to cope with the adversary on the latter's own ground, and mainly in accordance with his own methods. That Huntington gained supremacy was due to his superior resources and originality. Had they with whom he struggled been more ingenious or astute, he must have succumbed, and perhaps the great railroad project with him. It was a case of the survival of the fittest, and natural conditions determined the character of the fight. It should therefore be judged rather according to the exigencies of trade than the principles of abstract ethics. Such a discussion, however, involves what has always been, and always will be, a vexed question, with necessity or expediency on the one hand, and the requirements of theory or speculation on the other.

As these rails would require a large number of ships for transportation, the next question was how to secure the vessels at satisfactory rates, and Huntington's business shrewdness was again brought to bear His tactics can only be outlined. The details must be imagined. It would not do to let it be known that such a quantity of freight was to go forward. He called on his ship-broker, and said to him: "I want a good ship, one that will be steady and safe. Go out and see what you can find." He went out, and returned with three or four, and named the rates for each, but Huntington shook his head. "It is too

high," said he; "ships are coming in all along, and I am not in a hurry." The broker went out again, and presently returned with a much larger list, some of which were on their way to Liverpool then. He went out the third time, and came back with twenty-three. Huntington quietly noted down the vessels while talking, and suddenly said: "I'll take them." "Take them! Take what?" said the bewildered agent. "I will take all those ships," was the reply. "Oh! I can't let you have them all," expostulated his broker, almost in a fit of consternation; "it is impossible. I thought you wanted one; I must have two or three of them myself." "Not of these," said Huntington, with a quiet assurance that was invincible; "I have engaged them myself." And he got them without further parley.

The vessels took out to California some 45,000 tons of rails, and the ship-broker afterward said that had the ship-owners known what Huntington intended, the ships would have cost the company at least $10 a ton more—a clear gain of $450,000 for Huntington's company.

In the mean while how had affairs been prospering in the extreme west? The city of San Francisco had been empowered by an act of the legislature to subscribe for $600,000 of the company's stock, and to issue its bonds for that amount in payment. The city of Sacramento had been authorized to subscribe for $300,000 of stock, and the county of Placer for $250,000 of stock.

The legislature of California had enacted that it would pay the interest on $1,500,000 of the bonds issued by the Central Pacific for the period of twenty years. No aid was granted by Nevada.

On the 8th of January, 1863, the company commenced the construction of its road at Sacramento. At this time its directors, besides Mr Huntington, vice-president, were Leland Stanford, president; Mark Hopkins, treasurer; Charles Crocker, second

vice-president; James Bailey, Theodore D. Judah, L. A. Booth, D. W. Strong, and Charles Marsh. Between Sacramento and Newcastle there were nine contractors. Charles Crocker was one of them. When Huntington's work for the time was done in the east, and he came back to California, he did not find affairs in a satisfactory condition. Each of the original associates was to pay one-seventh of the expense, as government aid under the act of 1862 would not be forthcoming until forty miles had been completed; but now one of them refused to pay. Money was then exceedingly tight, and gold was worth a very heavy premium. Besides, the Sierra Nevada, instead of growing smaller in the eyes of the timid associate, had loomed up higher and higher in the exact ratio of the assessments called for. He had been looking at them through the big end of the telescope so long that the reversion of the instrument overwhelmed him. Huntington pleaded with him not to withdraw for his own sake, although mentally disgusted with his lack of courage. He even offered on behalf of Huntington and Hopkins to lend him money on the security which he had, and made the same proposition to Judah, who was also half-hearted, but Judah and Bailey both declined. Thereupon Huntington lost his patience, and bluntly told them both that there were just four alternatives, and one of them would have to be chosen, as he and the others had made up their minds that the company, as a company, was not going to borrow money for work in California until they had built to Newcastle; that each man should pay his share of the construction until that point was reached, when the company would have an income and a basis for credit. "Either you have to pay in your assessment with the rest, or sell out your interest, or buy men out, or the work stops." They were ready to accept none of these propositions, and the next morning Huntington took measures to bring the matter to an issue. Taking a span of horses he drove

out to see the nine contractors of the road, who were under an agreement that work could be stopped at any time and payment made for what had been done. As he reached each one of them he ordered him to stop work, and by nine o'clock at night he had completed his round and returned to Sacramento. He had stirred a hornet's nest. The first man that arrived in town reported what had been done, and great excitement followed. Efforts were made to buy out Huntington and Hopkins, who in fact granted two weeks' time for the purchase. Bailey and Judah went to San Francisco, and two or three days later telegraphed back that they had found parties that would take their interest. But when Charles McLaughlin, the principal man among the parties referred to, learned who was offering to sell, he said: "If Huntington is going to sell out, I am not going in. Just what sends him out will keep me out." McLaughlin subsequently confirmed this report to Huntington personally. In the light of subsequent history it is a fortunate thing that the negotiations fell through, as Huntington suspected they would.

On their return to Sacramento Bailey and Judah received back the money they had paid in, and withdrew.

During that first year, 1863, twenty miles of road were completed, and the company continued slowly building, using their own private credit to do so, until thirty-one miles had been finished, and Newcastle reached.

As in the case of every new project of such a nature, the originators of the Central Pacific found themselves opposed by various elements of an unfriendly character. One of these was the hostility of the owners of a railroad running a short distance easterly from Sacramento, who were hostile because they thought the building of the Central Pacific would injure their property, but later sold out to Huntington and his colleagues. This opposition was not large,

but persistent; and its hostility could be traced in the antagonism to all the financial negotiations and local legislation in which the overland road was interested. In addition to this the citizens of San Francisco annoyed the company by declining to fulfil the contract they had made to exchange their bonds for the stock of the company. This matter was finally compromised by the city's giving $400,000 to the company rather than fulfil its agreement to exchange $600,000 of its bonds for the same amount of the railroad company's stock. Had it stood by its contract it would have lost nothing, as the stock sold later at par and over.

When Huntington entered the railroad company the credit of Huntington and Hopkins stood very high in New York; but capitalists there did not hesitate to tell him that he was placing himself in a very critical position. One day a member of a firm with which he had had extensive buisness relations said to him: "Huntington, you are really going into this big enterprise, are you? I suppose it is all well enough, but California is a long ways off." "Look here, my friend," smiled Huntington, "I suppose you are afraid to sell me goods?" "Oh, I don't want to say that exactly," was the embarrassed reply, "but California is a great distance from here." "Yes," replied Huntington, a little stung by his hesitancy; "the trouble is, it is a great way to California overland, and then it is so much farther around Cape Horn, that I think you had better send me a memorandum of what I owe you, and I'll give you a check for it." A few days afterward a representative of the firm called on him at his hotel to say that his employer did not desire to close up the account with Huntington and Hopkins. Mr Huntington answered, "It is closed."

As the construction of the road was to cost a very large amount of money, and as California was vitally interested in its completion, it was thought that the state should render some financial assistance. Therefore the builders of the road asked that Califor-

nia pay the interest on a million and a half of dollars for twenty years. This aid was freely granted, for the officers of the state knew it was a wise and proper thing to do, and that it would be, as it was, approved by the people.

The inadequacy of the act of congress of 1862 being recognized, a plan for further aid by the government was devised, and largely by Huntington's efforts the supplementary act of 1864 was passed. To his personal exertions the Central Pacific may perhaps be said to owe its existence as a completed road, for without this additional legislation it would have been simply impossible to build the first of our transcontinental thoroughfares. Finding it impracticable to work under the act of 1862, Mr Huntington got it amended in important particulars.

On the construction between Sacramento and Newcastle the directors had found it impracticable to obtain manageable labor under the system of letting out the work to contractors, and on account of this difficulty the company let the work eastward as far as the west line of Nevada to Charles Crocker. Mr Crocker began the work, and advanced fairly well until the fifty miles were reached. At that point he saw the necessity of associating with him other contractors who had more experience than himself in railroad-building, and who could also furnish capital adequate for so great a work; but it was soon found that none could be induced to join in an enterprise of such magnitude under an open copartnership. As soon as Mr Crocker showed the railroad company the difficulties under which he was laboring, it at once organized a contract company, and called it the Contract and Finance company, hoping that men would be induced to take stock in such a company, in which they knew their responsibilities would be limited to the amount of stock subscribed by them. When this Contract and Finance company had been

organized, Mr Huntington made great efforts to induce capitalists in the east to subscribe to its stock, such men as C. K. Garrison, Moses Taylor, W. E. Dodge, D. O. Mills, and many others of large means; but the answer in every case was substantially the same: "Mr Huntington, we are disposed to think that this is all as you say; that there will be large profits to those who go in, but these profits are remote, and the risks are certainly very great. We think we shall have to confine our investments to things nearer home, not with the chance of such large profits, perhaps, but with less risks." It was thus finally made plain that the road could not be completed except by the original parties taking the stock of the Contract and Finance company, and travelling with it, so to speak, to failure or success, as the case might be.

It was to this season of anxiety that Charles Crocker had special reference when he testified as follows: "I would have been glad to take a clean shirt, lose all I had, and quit."

Huntington foresaw that if he waited until eastern capitalists were convinced of the soundness of the undertaking, there was little hope of its accomplishment, and that, if it were necessary, they must put all of their money and personal credit into the work, and so push the construction across the Sierra Nevada at the earliest possible day. That done, and the work over the mountains finished, there would be no trouble in making eastern capitalists acknowledge the soundness of the enterprise, and no other argument could be so good as that the builders of the road themselves had risked their own means in the construction of a road across the most difficult mountain range in the world. When they had thus manifested their confidence, it would be comparatively easy to procure from the moneyed men of the eastern states all the funds needed, at the minimum rate of interest, to complete the road to Salt Lake City, and

possibly beyond that point, before they should meet and make actual connection with the Union Pacific on its way westward.

Eighteen hundred and sixty-six was a laborious and eventful year for Mr Huntington. In addition to his duties as the financial and purchasing agent of the company, he was called upon again to watch its interests in the national legislature. The act of 1862 had proved radically at fault; and now certain provisions of the act of 1864, which the company found to be inimical, must be corrected. To procure the proper amendments was naturally the task allotted to him. During all the long session of that year he spent four days each week in Washington, including Sunday, two days in New York, and one in Boston, which required him to pass four nights out of the seven on the cars. His days were full of work, and his nights broken and uncomfortable. But his cheerful adaptability and his exceptional vitality enabled him to pass through the ordeal without any perceptible tax upon his strength. According to his plan of avoiding a divided responsibility, he talked to congressmen one at a time, until he had laid his case, with all his ingenuity and force, before every one of them, except those who were interested in the Union Pacific or the Credit Mobilier. His bill passed the senate by a vote of 34 to 8. It passed, in the house, by a majority vote of 61, Thaddeus Stevens having charge of the measure in that branch of congress. In him Mr Huntington, to use his own words, found "a man who dared to stand up for the right, as he understood it, regardless of clamor, prejudice, or any other influence which sways the mere politician or time-server." His freedom from restraint in acting out his judgment, his boldness in antagonizing false sentiment, however general or popular it might seem, affords a striking contrast with the subserviency and trepidation of another member of the national legislature, who apologized to Mr Huntington for having

voted for the passage of the Thurman bill. Said the former, "I really believe it was an unjust bill, but the pressure of public opinion was such that I could not withstand it." Huntington's reply was, "I pity you, sir; from the bottom of my heart I pity you."

Mr Huntington's encounter with a congressman, whose name it is not necessary to give, during his presence in Washington in 1866, is an incident which shows with what readiness and crushing force he used the *argumentum ad hominem*. After the passage of the bill, while Huntington was standing inside the chamber, the congressman strode up to him and abruptly said: "Mr Huntington, there has been corruption here, sir, in passing that bill! There has been corruption, sir!" Huntington quietly smiled, and with a look of apparent concern replied, "Why, I am surprised to hear you say so." "Yes, sir," the man continued, growing irritated, "there has been corruption here and money has been used, a great deal of money— to pass that bill!" "Well, now," good-naturedly replied Huntington, "I am pained to hear you speak in this way of your associates here; but I will be frank with you and tell you that I came prepared to pass that bill. I saw a large majority of the members, and explained to them the nature of the bill, and they said they would vote for it, and they did so on its merits, without one dollar. We wanted to get every vote. I went into the gallery, and through my glasses I carefully scrutinized the face of every man who was not committed to the passage of the bill, and I am a good judge of faces. I saw but one man in all that assembly whose vote I thought it might be possible to purchase with money, and you know very well that I did not endeavor to purchase that one."

Like all men of vast property interests which are subject to unfavorable legislation, Mr Huntington has been charged with unduly influencing the action of the government and of states and cities. But he

that there are many things, especially in the matter of railroading, that law-makers know but little about —things in which they must be taught by practical men and interested parties.

Wadsworth, at the beginning of the Nevada desert, 192 miles from Sacramento, was finally reached, but this was not accomplished until July 1868, more than three years after the road was fairly started at Newcastle. From Wadsworth to Promontory, over 500 miles, the road was built in less than a year—an almost inconceivable rapidity when the difficulties of construction are considered.

The construction of the road across the mountains and plains was marked by many startling incidents, but the main fact on record is, that the rails of the Central Pacific and Union Pacific companies were brought together at Promontory May 10, 1869, about seven and a half years earlier than the act of congress called for completion.

Before this meeting of the roads took place, Mr Huntington had made a contract with the Union Pacific people that the Central Pacific would allow them to build to Promontory, if they would sell to the Central Pacific that part of the road lying between Promontory and Bonneville table—about fifty miles; and before any knowledge of this contract was made public, he telegraphed to one of his associates to buy up the land at Bonneville for depot purposes for the Central and Union Pacific roads; but his associate did not secure this land until it had become known that here was to be the point of junction. When Brigham Young learned where the contract called for the junction, he would not allow his people to sell land there, but insisted that the junction should be at Ogden, a city that the Mormons had laid out in building lots. This made it expensive to procure sufficient ground for depots.

In adjusting the relations between the Central and Union Pacific roads it was necessary for the former

to secure certain bonds, amounting to upwards of $2,700,000, which were held by the secretary of the treasury, McCullough. Huntington's persistence and patience were well illustrated in the campaign that he carried on in pursuit of this object. He brought to bear all the influence he could on the obstinate secretary, got a report from the attorney-general that his company was entitled to the bonds under the law, obtained another of the same tenor from the solicitor of the treasury, and had to have it brought before a cabinet meeting, a majority of whom decided that the Central was entitled to this portion of the subsidy.

While, therefore, the secretary had to admit that he was legally entitled to them, he declined to deliver them. "That is all right, Mr Secretary," said the patient caller, "but there are parties interested with me in these securities who will want to know the reasons. Please give me your reasons. I don't want to go back to New York without the bonds or the reason why I have not got them. Your attorney-general says we are entitled to them." "Yes," hesitated McCullough, "you do seem to be entitled to them." "Then give them to me." "I can't do it just now, Mr Huntington, but—" "Then give me the reasons, Mr Secretary;" but the secretary was obdurate. Daily, for nearly a week, Huntington kept pressing the high functionary for reasons or the bonds. At last, in great irritation, he said: "Mr Huntington, if you don't let me see these other gentlemen who are waiting behind you I will decide this matter against you."

"Now, Mr Secretary," said Huntington, "rather than the secretary of the United States should do a thing so foolish as that I would stay here indefinitely." After he had made this speech he stepped aside with becoming deference and sat down to wait.

As soon as Mr McCullough had seen his other visitors he sent for the officer who had charge of the bonds and told him to deliver them. He did so, and

with the securities in his possession Huntington left Washington the same evening.

Meanwhile the construction of the Western Pacific railroad, which was to run from Sacramento to San José, had been progressing. This company was organized in 1862, and was to receive a subsidy from the government of $16,000 per mile for 123 miles. In the spring of 1867 the contractors became embarrassed, or did not like to put any more money into the enterprise. An agreement was made between them, Huntington and his associates, and the Western Pacific railroad company, by which the contractors assigned all their interests to the Contract and Finance company, which completed the road.

Perhaps no honester praise has ever been given than that of the senator from Missouri, Mr Bogy, who, speaking in favor of the Thurman bill, passed in 1878, which the directors of the Central Pacific claimed to be an unwarrantable interference with the contract between the government and the roads, was compelled to yield this tribute to the genius that originated and carried out the great enterprise:

"I look upon the building of the railroad from the waters of the Missouri to the Pacific ocean, at the time particularly in which it was built, during the war, as perhaps the greatest achievement of the human race. I am old enough to remember when the scheme of a railroad from the waters of the Missouri to the Pacific ocean was looked upon as a wild dream, as a thing nearly impossible, if not entirely so. . . . . Yet it was accomplished. And, in truth and in fact, it was accomplished at a comparatively small cost to the government. The lands donated to the road were not worth a cent without a railroad. The government had an empire lying west, between the waters of the Missouri and the Pacific ocean—an empire which has sprung into great states and territories from that day —a country which has become of great advantage, and which would have been utterly worthless without the

railroad. It has bound to this portion of the union the Pacific coast with bands of iron, and no one can tell what might have been the destiny of that section during the war if it had not been for the railroad. . . . . I give to the men who originated and carried through this great enterprise all possible credit for doing a great thing, at the critical moment, in a very short space of time."

It might naturally be supposed that, having finally completed the great link which bound in iron bands the east and west, the promoters of this work would sit down and enjoy the fruits of their labors; but railroading is a business that differs from every other. When the dry goods merchant and the banker have stocked their establishments and placed themselves in readiness for barter and exchange, they may be said to have completed their circle, and can sit down in the middle of it; but the railroad company is ever confronted with new and varying necessities. As the country grows they must widen with it. As people form communities, and have the products of their farms and factories to dispose of, they demand railroad facilities. Thus the work of a railroad company, like that of a good housewife, is never done.

There are few subjects more interesting to the student of his country's growth and civilization than a railroad map, whereon from small beginnings can be traced the development of great systems, indicated by long through lines, with their feeders, or branches, bringing to them the accumulated produce of the sections of country which they traverse. If one would like to know where lie those countries that are foremost in the arts, refinements, sciences, manufactures, and other civilizing agencies that make a people great and powerful, he has only to note where the most lines of railroad cross and recross each other. These lines represent both the cause and the effect of progress.

The California of to-day is a sturdy figure com-

pared with the infant of 1849. Her advancement has been scarcely less than marvellous. Her future no man can estimate. Her phenomenal growth is very largely due to the facility of railway communications with the east and all parts of the United States, brought about by the men who did the work of building the first overland road. The sagacious insight into the future which led Huntington and his associates to devote themselves to the construction of a national highway over the Sierra Nevada, beckoned them ever onward to new fields of endeavor and conquest. The fertile valleys whose soft Spanish names conjure up visions of entrancing skies, balmy air, luxuriant vegetation, and delicious fruits, have now been opened up to the invalid, the tourist, and the husbandman by the entrance of the railroad tracks, and towns, cities, and counties, all over the vast area of California, vie with each other in marketing the products of their soil. The names of Huntington, Hopkins, Crocker, Miller, and Stanford form an integral part of the history of this great advance in civilization and enlightenment, while, also, their various enterprises, since the completion of the road, reveal the rare foresight and faith upon which they built for the benefit of themselves and their fellow-citizens.

At this point, a word in review to bring out Huntington's particular factorship more clearly.

In its every aspect, whether in the direction of the details, or in the solution of the broader and higher problems involved, the construction of the Central Pacific railroad was a gigantic undertaking. To fully appreciate its magnitude, the discouraging features of the times, which have been noted, must be held in mind. The government had granted aid in lands, and had granted bonds, but the preservation of the union was in doubt. The national credit was little better than that of solvent individuals. However feasible the undertaking, however aided by national credit, it

must depend for its character upon the personality of those directing it. The men who stood sponsors for this enterprise were citizens of the most remote and most obscure anglo-saxon civilization. What infancy is to manhood, their entry into the financial world at that time is to the broad credit they have since achieved. All the mechanical difficulties which confronted the construction of a railroad across the Sierra were dependent upon the solution of financial problems. The pecuniary phase of the undertaking became, therefore, the supreme consideration.

At the time of his arrival in New York to enter upon the serious duties which he had assumed, no railroad line had penetrated west of the Missouri river, and but a single line of telegraph was to be depended upon for communication. The line from the Missouri river to tide-water on the Pacific coast lay through a country occupied by untamed savages, whose hostility would seriously complicate the task in hand. There was then no other name for this intervening region but the great American desert. The South pass was the only geographical designation on any map, indicating a gateway through the Rocky mountains. Few believed in the practicability of a railway through that pass. The territory to be opened by the construction of the road was greater than that subdued by Cæsar in all his wars of conquest.

The condition of affairs in California, the Pacific coast end of the route, was signally unfavorable to the prosecution of such a work. The settlement of the Pacific States had been confined to an enterprising pioneer class, and the condition of the labor market was hopelessly deficient for such an undertaking. The region was equally destitute of raw materials, for the manufacture of rails or iron, for locomotives, etc., in short, for every part of the equipment except rock and timber, and for hundreds of miles even these were wanting. California pos-

sessed neither the labor nor the manufacturing skill and capital which could be relied upon for the equipment or even the construction of a railroad. Necessarily all these things had to be supplied from abroad. All the iron laid down, all used in construction, all demanded by mechanical appliances to operate the road, had to be shipped from the Atlantic seaboard, either around Cape Horn, the longest voyage made for commercial purposes on the face of the globe, or across the Isthmus, by rail, to connect with steamship lines on the Pacific ocean, at an enormous expenditure of money for freight and insurance. The belligerent condition of the country augmented greatly these complications.

As the financial agent, by whose finesse, address, and skill the funds necessary for the prosecution of the work must be obtained, and as purchasing agent, who must procure and ship everything used in the construction and equipment of the road, Mr. Huntington confronted difficulties compared with which the mere mechanical feat of removing earth, constructing bridges, and drilling tunnels sinks into insignificance. The execution of the trust committed to him demanded the combined ability of the financier, the diplomat, and the negotiator. The successful construction of a railroad, however great the difficulties encountered, is but a triumph over inanimate things, but the financiering, the diplomacy, and the negotiations necessary to the obtaining of capital for the prosecution of an untried and doubtful experiment is a contest in which success is achieved only by a triumph of mind over mind. The manner in which these difficulties were met and overcome by Mr Huntington proves the possession on his part of ability equal to that of any American who has gained distinction upon these fields. The masterly manner in which the problems committed to him were solved entitles him to a foremost rank among those by whom has been accomplished the greatest financial and en-

gineering feat in an age which surpasses all others in such achievements.

If the construction of the first overland road was hastened by the outbreak of war, it is equally certain that the same cause delayed for many years the completion of the Southern Pacific line, which, skirting as it did the frontier of Mexico and forming the shortest possible route across the United States, should have been naturally the first transcontinental line to be built; for it had the approval of the army and of the secretary of war, not only as the shortest line and the least difficult in the amount of work to be done, but as the most necessary from a military point of view. In 1871 congress made certain grants to a Pacific road which should be distinctively a southern line. These grants included lands west of Texas, congress having no power to dispose of land in that state, and were made to the Texas and Pacific railway company, which was vested with a federal franchise. The act provided for a railroad from Marshall, in northeastern Texas, along the 32d° parallel, by the most direct and eligible route, via El Paso and Yuma to San Diego bay in southern California, with an extension at the east end from New Orleans to a point near Marshall, and with a connection at the west end from Tehachapi, half-way between San Francisco and Fort Yuma, into San Francisco. The extension in Louisiana was to be built by a corporation of that state, and the extension to San Francisco by a corporation of California, namely, the Southern Pacific. This latter company was in existence several years prior to the formation of the Texas and Pacific, and had a part of its road built when the act of 1871 was passed. Under the law the company was required to build after the first year not less than twenty miles annually on the northerly portion or main stem, and on the southerly portion from Tehachapi pass to Fort Yuma not less than fifty miles a year. This was a hard requirement, as money in those days

was difficult to get; and in the 350 miles or thereabouts between those two points, there lay two mountain crossings full of topographical difficulties, including some seventeen tunnels, one of them, the San Fernando, being 7,000 feet long; two dry deserts affording neither water nor sustenance of any kind for man or beast; while at one point the road had to cross what had been an ancient arm of the sea below the present ocean level, where the heat was almost insupportable, and where water for the engines on certain portions of the road had to be hauled a hundred miles.

Huntington and his associates realized fully what the establishment of a southern line threatened with respect to the Central Pacific, if built by others than themselves; for they knew that the building of it could but result in taking from the Central a portion of its business. He saw quickly the necessity of the moment, which was to control this line, and thereby reduce to its minimum the power of harming the Central.

There was another incentive to this construction in the hostility of San Francisco, which had frustrated many of the company's projects. Mr Huntington, when the Central Pacific was completed to Oakland, saw the necessity of having it continued to Goat island, as it would then reach deep water, and make the transfer so short that it would be almost equivalent to being in the city, for in fact the island is in the corporate limits. But the city opposed the railroad's occupation of the island. Mr Huntington then told the citizens that they were making a great mistake; that it would be largely to the city's benefit to have the island for the west terminus of the railroad, and that if the railroad was confined to the dry land of Oakland with its wide margin of shoal water, the great tonnage business of the road would be left at the straits of Carquinez, where deep water could be found along the margin of the dry ground on the shore of

the straits, and warehouses could be erected at small cost for the storage of the vast inland tonnage of California. San Francisco prevented the use of Goat island; the immense storehouses were built at the point to which commerce was sure to gravitate. This, too, without the expenditure by the company of large sums of money, which outlay would have been necessary had the road been allowed to make its terminus at Goat island.

In 1866 congress passed an act granting large tracts of land for the construction of the Atlantic and Pacific railroad, the same act giving a land grant to the Southern Pacific company to build from San Francisco to a point on the Colorado river near the Needles; but very little was done toward building, except to get control of the road from San Francisco to San José, and build from San José to Gilroy, when the owners offered to sell their property to the builders of the Central Pacific. Huntington and his associates bought it. After this purchase the road was built in every case according to the requirements of the acts under which it was built. When the Texas Pacific bill passed in 1871, making a large grant of land to build a road from northeastern Texas to San Diego, California, the same act gave a land grant to the Southern Pacific to build from Mojave station, on the line of the Southern Pacific from San Francisco, to the Needles, and to Fort Yuma on the Colorado river, in the extreme southeastern part of California, which was built according to the act making them the land grant. After building to Fort Yuma, the Texas and Pacific, which had not been able from financial and other troubles to build east through the territories, disputed for some considerable time the rights of the southern road, but finally assigned their land grant in the territories to the Southern Pacific company, which continued building eastward until they reached El Paso, thereby securing the right to the land grants in Arizona and New Mexico, and continued further

building and purchasing lines until they reached New Orleans, their present eastern terminus. In this brief statement is compressed a world of railroad history, in which Huntington was the central figure and dominating force.

The construction of their road by the Southern Pacific company to Yuma was not without incident, in which his characteristic foresight and fertility of resource were called into requisition; but it was the struggle to get beyond that point to a desirable eastern connection which brought him into the memorable conflict with Colonel Scott, of Pennsylvania railroad fame, who, as the president and controlling spirit of the Texas and Pacific road, was the Hercules, or rather the Ulysses, with whom he had to contend. Scott, having failed to comply with the act providing for the construction of the Texas and Pacific road by the date fixed, appeared before congress to ask for an extension of time. Huntington met him in the chamber of the Pacific railroad committee, where chiefly the issue was made and determined.

One day during the controversy between the two railroad magnates, which was a national sensation as long as it lasted, Scott met Huntington and said, "Huntington, we're beating you!" "Yes," said Huntington, in his quiet way, stroking his beard, "that's the way I should state it, Scott, because you are beating me in many things, but in the actual building of the railroad I shall beat you."

The difference in the methods of the two men in their contest was noticeable and characteristic. Scott would spend three or four hours before a congressional committee, while Huntington said his case was so fair and plain he could present it in a few minutes—in fact, it stated itself.

Bitter as the fight was between these two men, it never reached the point of personal animosity. Huntington told a friend afterward: "I liked Colonel Scott very much. Our railway interests were opposed,

that was all. Scott was one of the best fellows that ever lived—a whole-souled, large-hearted man. If it had not been for others, whom I will not name, Scott and I would have made an arrangement. When we got pretty well toward Fort Yuma, I told him I would meet him at Yuma, and we would make a close alliance and work together. His people dissuaded him from doing it, and so he kept on badgering congress for the sixty-eight millions that he wanted in order to build through to San Diego. A year later we got to Yuma. 'Then,' said I, 'I will meet you at Tucson. We can't wait for you to build clear through.' He would not do it. His friends just knew he was going to beat me. The next year, I think, we were at Benson. I told him finally: 'Now we will meet you at El Paso. You have six hundred miles to build, and we have two hundred.' But he said: 'No, I will not do it. I've got you now, Huntington. I have eight out of the thirteen men on the railroad committee sure.' There were twenty men in the room at the time. Said I: 'Colonel, I am surprised to hear you say that. I don't own a man of the thirteen, and don't know what they are going to do, and here you say you have got eight of them sure. The committee were to meet the next day. That night Scott and I had a long talk together, and at midnight he had practically agreed to form an alliance with me, by which we were to meet at El Paso, and he was to stop there. But at the last minute he refused to say decisively whether he would do it or not, and when we parted he said: 'I'll give you my final decision to-morrow morning at 7 o'clock.' 'All right,' said I.

"The next morning at 7 o'clock I had a trusted agent at Scott's room in the hotel. Scott hadn't got up yet. My agent said: 'Well, Colonel Scott, I have come to get your answer to Mr Huntington's proposition.' Scott raised himself up in bed on one elbow and rubbed his eyes. 'Ah, yes,' said he, 'tell Hunt-

ington I'll see him in a little while.' 'But,' said my man, 'Mr Huntington wants yes or no.' 'Yes, yes, I know,' said the colonel, 'I am going to get right up, and I will be down in a minute or two.' 'That won't do,' said my messenger; 'it's yes or no, colonel, and I would advise you to say one thing or the other. Remember what I say; it's your last chance!' Still Scott evaded the issue and shifted around to get time. He had been talking with his counsel and other friends, and they had told him that Huntington was scared or he would not be so anxious about this matter at the last moment, and that he, Scott, had the committee sure. When my representative left him, the colonel was slowly getting into his clothes, but it was too late. I had decided to take my chances of the fight, and when the committee met it was found that instead of standing eight to five in favor of Scott, they stood eight to five in favor of my company, and his bill was effectually smothered."

Years after this incident, Scott, chatting one day with the well-known Nevada millionaire, J. W. Mackay, said: "Mackay, that man Huntington is the hardest block I ever stumbled against!"

While Mr Huntington was deep in the contest with Mr Scott, the Central Pacific was the object of much solicitous discussion on the part of congress. The act of 1862 had long since been shown to be inadequate in its provisions to insure the building of the railroad. The act of 1864, which was passed to remedy the defect and to give better facilities to the company for raising money, had also been found insufficient so far as the return of the money to the government was concerned. As the years passed by, it was seen that the requirements concerning the transportation of government supplies, and the five per cent of net income to be paid to the government, would not result in the payment of the debt.

The question being put to Mr Huntington, "How did it happen that the road fell so short in this

respect?" he answered: "It was overlooked by the builders of the road and by the government that when the railroad was completed it would of itself do the policing of all that section of country through which it was built. This proved to be the case; hence it was not necessary for the government to send troops or supplies for the purpose anticipated. Therefore the company was not called upon, and consequently derived but little revenue from the government for the service contemplated in the act of congress. The result proved that the government builded better than it knew."

An attempt was made, through the so-called Thurman act, to force the Central Pacific and the Union Pacific roads to repay to the United States the interest on the bonds, as the same was paid by the government; but the supreme court decided that the two companies were under no obligation to refund to the United States the interest paid before the maturity of the principal of the bonds. In point of fact, the payment of the interest or the principal of these bonds in money was an afterthought, and by the terms of the contract contained either in the act of 1862 or the amendment of 1864, they were called upon to pay only in services and without regard to time.

It is particularly interesting at this point to look back at the debates on those two bills, and note the temper of congress and its evident intentions and purposes, at a time when the whole country regarded the enterprise of a Pacific railroad in the light of a difficult problem, the solving of which meant incalculable benefits to the nation. During the discussion of the bill of 1862, Mr Howard of Michigan, chairman of the senate committee on Pacific railroads, who reported the bill, said:

"When the road shall have been completed, assuming the bonds issued to be $62,880,000, the maximum estimate and the entire interest will be but $3,773,800 per annum. The present able chairman of the

house committee took occasion to inquire directly of the government the exact cost to the government of the transportation provided for by this bill, and found it to be $7,357,000, or about one hundred per cent more than the full charge of interest against the government when the road shall have been completed. I now call the attention of senators to this consideration, or rather to this pregnant fact, not to be ignored or avoided, that the difference between the interest, $3,773,800, and the present cost, $7,357,000, with the five per cent reserved to the government by the bill, would necessarily pay the government bonds and interest years before the government bonds would mature."

Senator Wilson of Massachusetts said:

"As to the security the United States takes in this road, I would not give the paper it is written on for the whole of it. I do not suppose it is ever to come back in any form except in doing on the road the business we need, carrying our mails and munitions of war. We ought not to vote for the bill with the expectation or with the understanding that the money which we advance is ever to come back into the treasury of the United States. I vote for the bill with the expectation that all we get out of the road, and I think that it is a good deal, will be the mail carrying and the carrying of munitions of war, and such things as the government needs. I believe no man can examine the subject and believe it will come back in any other way than is provided for in this bill, and that provision is for the carrying of the mails and doing certain other work for the government.

"I have little confidence in the estimates made by senators or members of the house of representatives as to the great profits which are to be made and the immense business to be done by this road. I give no grudging vote in giving away either money or land. I would sink one hundred millions of dollars to build

the road, and do it most cheerfully, and think I had done a great thing for my country if I could bring it about. What are seventy-five or a hundred millions in opening a railroad across the central regions of this continent, which will connect the people of the Pacific and the Atlantic and bind them together?"

Said Mr Wade:

"Sir, your money will not be lost. In a pecuniary point of view it will be a gain to this government to make these facilities for settling this wilderness. It will strengthen us in a military point of view. It will strengthen the union, which is more than all. It will do more for the country than we have done for any number of years past."

Mr Collamore said:

"The bill carries the idea, and this section provides for the repayment of the loan, as gentlemen call it. In a subsequent section it is provided that the payment shall be made in the carrying of the mails, supplies, and military stores for the government at fair prices, and also five per cent of the net proceeds or sums to be set apart for the government. That is all the provision there is in the bill for repayment."

Mr White of Indiana, when he spoke the following words, certainly expressed the views entertained at the time by a majority of the representatives in congress:

"Now, sir, I contend, that although this bill provides for the repayment of the money advanced by the government, it is not expected that a cent of the money will ever be repaid. If the committee intended that it should be repaid, they would have required it to be paid out of the gross earnings of the road, as is done with the roads in Missouri, Iowa, and other states, and not from the net earnings. There is not, perhaps, one company in a hundred where the roads are most prosperous that has any net at all. I undertake to say that not a cent of these advances will ever be repaid, nor do I think it desirable that

they should be repaid. The road is to be the highway of the nation, and we ought to take care that the rates provided shall be moderate. I think, therefore, that this will turn out a mere bonus to the Pacific railroad, as it ought to be."

Mr Huntington and his associates, notwithstanding the members of congress who made the legislation did not expect to get anything in return, except the five per cent of the net earnings of such service as the government should need, did not wish to have this large balance running against the company, and therefore passed resolutions in their board creating a sinking fund whereby this sum should be reduced; but before this could be fairly organized, Senator Thurman, of Ohio, introduced a bill, which passed through congress, taking this sinking fund out of the hands of the company, and compelling its payment into the treasury of the United States, to be handled by the treasurer, whose investments up to 1890 were a loss to the company instead of a gain, while if the company had been allowed to handle their own sinking fund the accretions would have been millions of dollars.

When the government chartered these roads it was believed by the builders and by the government that there would not be another railroad constructed across the continent; but before the overland road had been completed, the government gave to another road—Northern Pacific—a competing line, a subsidy in land and bonds of greater value than had been granted to the Central and Union. Moreover, the Northern Pacific not only divided the volume of business with the Central line, but reduced rates very largely. Also a little later the government granted to the Atlantic and Pacific, another competing road, land that was of more value than the lands it granted and the bonds it loaned to the Central and Union Pacific, which again divided the volume of business and reduced rates. Of course the government knew

that it was destroying the power of the Central and Union to repay the large advances it had made, as these roads were built when railroad material was at war prices, while the others were built when roads could be constructed for less than one-half what the Central and Union cost. While this was proper for the sovereign power to do, as it made it possible to police those high, dry regions in the centre of the continent, which was difficult to be done without the roads—admitting even this, still the government must have known that it would lessen the ability of the Central and Union to pay their debts to the government. The amount due the government is large, and has to be paid out of the earnings of less than 300 miles of the road, between Reno, Nevada, and San José, California, as the rest of the aided road between Reno and Ogden, say 600 miles, has no earning power, and is simply used as a bridge to connect the rails between the east and the west. The payments to the government will have to be very small and extend over a long time, if paid at all, as the earnings of the road are from the people living along its line, while the government itself has destroyed its power to earn any net money on its through business by giving greater aid to other competing lines, and by the passage of its interstate commerce law, which allows the Canadian Pacific to do much of the overland business at cut rates, as it is outside of the control of the United States government, and virtually bars the Central and Union Pacific from competition.

Mr Huntington claims, in view of these general facts, that the action of the government in its treatment of the Pacific railroads raises many equitable considerations. How these will be disposed of is a matter for subsequent history.

While the railway system of California owes its existence and perfection, in such large measure, to the talent and industry of Mr Huntington, to the same

agency is due the conception and development of another vast system east of the Mississippi. The old landings on the Ohio river had been the terminus of what used to be known as the Breckenridge bridle path, for many years the only trail leading from Kentucky into Virginia. Afterward it was called the James river and Kanawha turnpike; then it became the James river and Kanawha canal, and still later grew into the Virginia Central railroad. With its ultimate evolution into the well-known Chesapeake and Ohio line, the history of Mr Huntington's railroad construction in the east begins.

The state of Virginia had nearly bankrupted herself in the endeavor to build a line of improvements from the Hampton roads, on the lower Chesapeake bay, to a connection with the navigable waters of the Ohio river. After all others interested in the work withdrew, Mr Huntington continued, and advanced sufficient means to complete the road and keep it open through the Kanawha and New River mountains to the Ohio, and thence to Memphis. It was the most expensive work ever done east of the Mississippi river. Some idea of the enormous outlay involved, and the prodigious obstacles encountered, may be gathered from the fact that in the neighborhood of Jerry's run, where there is one vertical fill of 200 feet, twenty-three miles between Covington and White Sulphur springs cost a little over $6,900,000.

Hampton roads, on the lower Chesapeake, are waters where more ships go for orders than perhaps to any other port in the United States. The roadstead is a good harbor, except for the fierce northeasters, when all that need be done for safety is to run around Newport point into Newport news, which is a perfect harbor, with an area almost without limit, and the waters of which have frozen over only twice in a century. At Newport news, the deep water terminus of the Huntington system, he has built a dry-dock, a marine railway, and a ship-yard,

which is probably the largest and most perfect in the world. The details of the various industries and the enormous business done at Newport news, dependent upon and deriving life from his enterprise, may be left to the imagination of the reader.

Mr Huntington, who had built the line of railroads, 1,040 miles in length, as indicated, west to Memphis, constructed, as one of a syndicate, the Louisville, New Orleans, and Texas railroad from Memphis to New Orleans, where it connects with the Southern Pacific road to San Francisco, completing a chain of railroads, known as the Huntington system, from Newport news to New Orleans. Thus the boy who left home to do for himself, single-handed and alone, with but one hundred and seventy-five hard-earned dollars in his purse, rides in his own car from ocean to ocean, nearly 4,000 miles, over roads created or owned in large part by himself, and under or subject to his control. There is no other such achievement in the history of the world. Yet its consequences to humanity are, in the aggregate, vastly more important and beneficial than to himself. One man's *quantum* of what the world can afford of comfort or happiness differs in but slight degree from that of another. The possibilities of fruition are actually determined by the requirements of human nature; and the requisites to contentment are much alike in all persons. In the case of every one possessing wealth, especially if it be kept actively employed, the measure of personal needs and uses being readily filled, there is an overflow of the world's goods which he commands to those who are involved in his activity. The greater his riches and the wider his enterprise, the larger the number of those whom he makes happy by affording them the means of supplying their needs and satisfying their proper desires. This is one of the most substantial ways in which a man's worth can be manifested. I speak without regard to philanthropy in the ordinary acceptation of the term;

yet of what avail is the spirit of benevolence without the means of doing good? These means are furnished, first or last, by those who, in the pursuit of their own ends, have made themselves the source of pecuniary benefits. So far as the result to others is concerned, their lives are a benefaction, whether they so intend or not. I look upon those who contribute to the well-being and prosperity of a community, though they may do so only in consequence of their efforts to promote their own interests, as benefactors, nevertheless, by virtue of their lives. There are many sorts and degrees of selfishness, from the sordid worship of self and antagonism to all else that is human, to that noble phase of self-interest which the philosophers themselves labor to distinguish from disinterestedness. But Huntington has not been a heedless or unconscious factor in building up a great many persons, creating values and enlarging civilization and happiness within very wide limits. It has always been to him a source of much pleasure to anticipate the general usefulness of every enterprise upon which he proposed to embark; and his greatest satisfaction is to realize that he has been instrumental in helping and elevating others. It is pleasing to note that in his struggle with the elements of nature, human and material, the conflict has not made him hard and unsympathetic. His life has been a long series of benefits to the many within the range of his influence as a developer of industry, while his quietly bestowed and discriminating charities make it plain that he enjoys planning for the happiness of others.

Such a life cannot be scrutinized too closely. The lessons to be derived therefrom are a contribution to all that is most valuable in human experience, which is our best knowledge and guide.

Among the other great enterprises in which he is engaged in the east, apart from his associates in the building of the overland road, who confined their operations to the Pacific coast, may be mentioned

his interest in the United States and Brazil Steamship company, which runs a line of steamers from New York to Brazil. Three other lines had been put on this route, but all were withdrawn on account of losses. Huntington and his associates lost large amounts of money, but, influenced largely by his patience and determination, the company continued until the undertaking was made to pay. He is interested in the Old Dominion Steamship company, and also in the Pacific Improvement company, and the Morgan line, now owned by the Pacific Improvement company, which owns and employs the best freight ships that run out of New York.

Thus with the brevity consistent with the serious nature of the subject, I have endevored to present the experience and life-work of this most important study among the builders of the Pacific coast. A few of his distinctive traits of character have been already noted. He should be seen from as many other points of view as possible, for in all things, though strictly practical, his originality is striking. His whole life has been one of self-imposed and cheerful labor. He has loved work not only for its results, but for itself, philosophically cherishing the belief that without personal effort there is no development commensurate with a man's capabilites. Yet his intellectuality has been of that distinct order which is elastic, restful, and recuperative; hence his endurance, which otherwise would appear inexplicable.

"I do not work hard," he says. "I work easy. There are very few people who work too hard, but there are a great many who do not work right." He leaves his business in his office, and, divested of all care, when he goes to bed it is to sleep, not to think, applying even in this way the principle of economy, which has been the rule of his life, to the preservation of health and strength. Every day he is a new man.

"Each morning sees some task begun,
Each evening sees it close."

Of warm and sympathetic temperament, fortunately his home has not only been his castle, but a haven of rest and recreation. At its threshold whatever load may have oppressed him drops from his shoulders; under its peaceful roof a truce to commerce and the contentious world. He is patient withal. Recognizing the inevitable—that art is long and time is fleeting—he has exemplified the invincible power of one who is able to labor and to wait. His life, therefore, at every point, has been in the future, and continues to be so. His aspirations have all been large, involving faith and confidence in his plans for remote results. Distinct from the ordinary man, immediate or proximate things have not concerned him except as essential means to important ends. Hence the characteristic stability of his creations. His enterprises, requiring time for their completion, must stand when finished; to contemplate less than the maximum duration for his work would be to him hardly less than mental suicide. In all his railway building the excellence and permanency of the roadbed are regarded by him as the cardinal virtue; he builds railroads to operate, not to sell. His predisposition in this respect is wholesome, and in contrast with the ambition of many other railroad men, who regard their property as speculative, and prize it mainly as an instrumentality of fortune by manipulation or wreckage.

The wider the scope, the greater the comprehensiveness of a scheme, the better it comports with the character of his mind—the more gratifying it is to his marvellous faculty for generalization and analysis. In the gradual combination of his interests west of the Mississippi into one great corporation—the Southern Pacific company—and those east of the Mississippi into another—the Newport News and Mississippi valley company—Mr Huntington expresses his judgment regarding the advantage of consolidation. He believes that the great need of the commercial and

travelling public in America is the consolidation of the great competing trunk lines. This, he insists, would benefit every one, instead of resulting, as the present policy does, in the instability of rates through reckless competition, the extravagant losses caused by the railroad wars, and the consequent deterioration of property values occasioned by the feeling of insecurity on the part of those having money invested in railroad bonds and stocks. He expresses the opinion that probably twenty-five per cent of the profits of the railroads of the United States is paid in the way of rebates and drawbacks to ticket agents, brokers, and middlemen, a great part of which would be saved by joint ownership, which would give a profit to railroads, which are now really losing money, without the necessity of advancing present rates; hence the benefit not only to the owners of the road, but their patrons; that if this idea of joint ownership could be so carried out so as not to have more than the carrying companies in the United States, it would be largely beneficial, not only to the owners of these properties, but to those who use them. A consolidation involving principles and details of such an intricate and complex nature would overwhelm and dismay almost any other man, even in the United States, where boldness of enterprise is proverbial; but in his mind the problem is reduced to perfect simplicity. Said a competent critic: "Nobody but Huntington would have the boldness to march squarely up to a proposition like this; but he demonstrates its feasibility with a lucidness peculiarly his own."

Men having the genius for originating great enterprises, devising general policies, and possessing the administrative force necessary to execute their plans, have seldom been credited with the mastery of details. The possession of eminent administrative ability presupposes an habitual mental attitude commanding a general rather than a specific view of things.

It is like the study of topography from a commanding summit, wherein the minutiæ of detail are obscured by distance. However true this may be of men in general, Mr Huntington affords a conspicuous example of one equally master in the conception of general policies and the direction of the smallest details. The possession of these characteristics is due chiefly to the clearness and incisiveness of his mind, which perceives with a glance all the bearings of a business proposition at once. Endowed with the faculty of concentration, with a directness of method which is intolerant of any digression from the subject under consideration, he reaches the end of a negotiation directly. Thus affairs of the largest magnitude, in the consideration of which other men consume days, are with him concluded in as many hours.

It is the general belief that one possessed of such ability for the practical affairs of life can have but slight interest in things beyond the realm of his immediate cares. Mr Huntington is a striking exception to this rule. The controlling motive in some of the most notable schemes of his active and busy brain has been the accomplishment of results for the public good. One of the incentives to the construction of an overland railroad was the influence its completion would have upon the solution of the slavery question, by reason of the creation of new free states. Mr Huntington saw clearly that the construction of a great highway of commerce from the Atlantic to the Pacific seaboard, along the latitudes of freedom, would extend settlement along this highway, which would carry with it the institutions of the free states of this republic; that northern settlement and sympathies would be first in possession of the great unsettled territory west of the Missouri river, if it secured first and most important communication. In making a subscription to the construction of a railroad in the Congo basin, Mr Huntington remarked that if the investment were wholly lost he

would find his compensation in promoting the civilization of the dark continent. The profession of this motive was referred to derisively by some of the public journals of the country, whose doubt of its sincerity proceeded from their inability to recognize philanthropic motives in one so distinguished in the financial and commercial world.

The great public has known nothing of Mr Huntington's personality, except that which is disclosed by the splendid energy displayed in public enterprise, owing to the absence in his mind of that species of vanity which constantly obtrudes itself upon public attention in the form of published papers, speeches, and newspaper interviews. He has been indifferent to comment; and being satisfied with the rectitude of his own conduct, he has never had, nor would he have, what most men of his rank seem to regard as indispensable, that is, an "organ." He might escape the strictures of the press if he would, but he is too independent to explain for the sake of conciliation. Among those whose knowledge of his character is derived from personal acquaintanceship, the expression of his feelings regarding the Congo investment was regarded as in perfect consonance with the controlling motives of his life.

Another distinctive feature of Mr Huntington's intellectuality is the abnormal retentiveness of his memory. He not only remembers the minutiæ as well as the general facts regarding a subject that he is specially interested in and has investigated for a purpose, but affairs, events, names, and dates, casually mentioned within his hearing, find a permanent lodgment in his sensitive mind, as though through his ears and eyes the process of mental photography had been continuous, forming upon his brain indelible and vivid pictures. Upon this vast repertory, accumulated during a long life of activity and variety, he draws for information in emergency, at an instant's notice, sometimes with startling effect. This mar-

vellous faculty simplifies and expedites his work, and makes easy to him the administration of vast affairs which would bewilder and crush most others.

Possessed of such dominant mental characteristics, he is aptly described by Max Nordau as one of "those men who, combining genius in judgment with genius in will, rank the highest of all. These are men of action, they who make history, who form nations intellectually and materially, and dictate their fate for years to come—organizers, creators of states." Such men cannot endure the restraint of interference; in whatever they undertake they must control. They are born leaders. It is but the natural consequence of his peculiar ability and disposition that, never shirking but always pleased to assume responsibility, he has been the controlling as well as the creating power in all the great enterprises of his life.

In the formation of the railroad syndicate at Sacramento, the directory of which continued so long unchanged, except by the death of its members, Mr Huntington chose to be vice-president; so, also, in the directory of the Southern Pacific company, in the creation of which his factorship was perhaps even more conspicuous, though not more distinct, than in the Central Pacific. He could not but feel that in the conception and promotion of these undertakings his had been the greater part, but he did not covet that conspicuity of station which most others delight in. Were it not requisite, in the nature of things, that he should be the actual incumbent of a commanding executive office, it would be a matter of no special concern to him whether or not his name were known in the administration of the companies' affairs. From the outset, there never was a question as to his occupying whatever place in the directory he might desire. "The bubble reputation," therefore, did not attract him; nor did he, on the other hand, by reason of any sentiment, prefer the shade of ostensible second place. The underlying fact is, that he has looked

upon railroading at all times as a purely impersonal business proposition; and he has been totally indifferent to that sort of distinction which, in the superficial public mind, is associated with nominal functions. "The world is still deceived with ornament," says Shakespeare, and, in the sense intimated, no one has a finer appreciation of the poet's philosophy than Mr Huntington. It is not surprising, therefore, that in certain regards he holds what is assumed to be the estimate of the masses, who judge by appearances alone, in utter disregard. Subserviency to popular sentiment, in whatever forms, arouses an irrepressible antagonism in him, and he is not slow to characterize demagogy according to his mind or the occasion, crushing its mask with the blunt weapon of facts, or making its very disguise an advertisement of its hypocrisy by his quaint irony. It is constitutionally abhorrent to him to wish to enlarge himself in the estimation of others by any of the prevalent methods of form or affectation, sham, or pretence. His hostility to every unsubstantial process of self-aggrandizement distinguishes him from the majority of men, among whom there are some who, occupying eminent position and accredited with greatness, lay much stress upon the influence and dignity which office or station confers upon them. Certain it is, however uncomplimentary it may be, that a large part of aspiring humanity are puffed up by the prestige of position, satisfied with themselves, either because they are not wise enough to realize that their preferment is adventitious, or because they are so weak as to indulge themselves in the conceit that the place they occupy derives its character from their personality.

Mr Huntington's selection of office for himself in all his enterprises has been determined solely with reference to business utility and fitness, uninfluenced by any thought or care whether he might be magnified or diminished thereby in the appreciation of the outside or the inside world. Although he has con-

trolled in every undertaking in which he has participated, and has had the option of placing his name at the head of the official list, he has scarcely ever seen fit to do so, good-humoredly indulging with this honor some associate more ambitious in this direction than himself, yet at the same time eligible; while, however, his own weight in the administration of affairs would be none the less because of apparent inferiority in rank. This extremely business-like view of business has been a marked feature of his career. It has been his standard from the inception of the first overland railroad, at all times, and never more so than when, at the annual meeting of the Southern Pacific company, in April 1890, he deemed it best for the common interest that he should be elected to the presidency. On various occasions during the thirty years' history of the railroad system on the coast he has found it necessary to take a firm, strong hold of the helm in order to restore the colossal business ship to her bearings, although the management of the Central and Southern Pacific roads is on the whole considered first-class in railroad circles. In asserting his control, however, he has been always careful and deliberate, never interfering to change the course of affairs unless change or correction were positively needed. At all times he has been patient and tolerant, for no one realizes more clearly than himself the difficulty of maintaining perfect service in all the details of a vast commercial enterprise; but whenever he has perceived that business required it, he has not hesitated to interpose and insist upon radical and complete reform, and to see that it was carried out to the letter. Living for the most part of the year in the east, at a distance from the home office, he had preferred that the presidency should be filled by one of his associates who resided in California. When, therefore, he became president, it was not because he had any greater inclination to occupy the office then than he had previously had. He assumed it at some

personal sacrifice, and for strictly business reasons, the chief of which was to re-establish the Pacific railroad system upon an exclusive and radical business basis. He deemed it unwise and demoralizing for the company, in the *personnel* of the directory or its employés, to allow their minds to be diverted in any manner from the legitimate and clearly defined objects of railroading, which is altogether a commercial enterprise. A railroad is a business institution, and, as such, whatever those who are connected with it may do as individual citizens, it should hold itself aloof from politics. Its alliance with any political party is not only unnecessary, but injurious to its best interests. Among candidates for those offices in which it is interested, it can select fair, unprejudiced, capable men upon whom it can rely for the security of its rights and privileges; while the identification of a railroad with either party cannot fail to excite the animosity and make it the object of attack of the opposing party. In other words, a railroad company which becomes a partisian in politics stakes its vital interests upon a speculation. It must suffer serious loss if its party wins, while if that party is beaten at the polls, it has at once to encounter the hostility of the new government. The inevitable effect of mixing partisan politics with railroading or any other business is to degrade the latter and injure it by turning it from its proper channel. For years Mr Huntington had observed the railroads on the coast in which he was deeply interested gravitating into a permanent and recognized alliance with the republican party, of which he himself has been a consistent and earnest member from the date of its foundation. His objection was not to the party that his associates chose to espouse, for it is his own, is now the strongest at the polls, and may continue so indefinitely; but to affiliation with any party which had tended to make the railroad organization a political machine and caused its offices to be turned into a rendezvous for politicians.

This was the state of affairs which he discussed in his address to the board of directors at the annual meeting referred to. He spoke plainly, hewing to the line, the chips falling where they would. His address was widely published and commented upon, and is written upon the minds of the people of the coast. The policy enunciated, which will surely be put into execution, will allay the popular irritation and ill-will caused by a gigantic corporation's going unnecessarily beyond its province to influence elections, and will add to the railroad securities whatever value there is in the respect and good-will of its patrons.

This incident in Mr Huntington's career is noteworthy as showing the great value of single-mindedness and consistency in the pursuit of an object. The perfect control and successful promotion of a great enterprise require an exclusiveness and concentration of purpose which admits of no division of energy or dalliance with collateral issues. To what degree his ability to so centralize his thoughts and keep his activity confined to the work on hand as to give him the mastery of whatever he undertakes is due to his superior mental and physical organization, or to what extent it is the result of his experience and friction among men in overcoming obstacles, is a question too psychological in character to be answered with definiteness. But I apprehend that although he possessed the natural equipment for supremacy, he owes the development and availability of his inherent strength to painstaking observation and the practice of those virtues which, brought into full play, give force and character to every man in accordance with the gifts with which he is endowed. From this a lesson is deduced, to point the moral of which more generally literature affords no illustration more beautiful or more practical than the scripture parable of the talents. There are no two definitions of genius that are identical or that can be made to harmonize entirely. It is ob-

vious that without original endowment of heart and brain, no amount of labor, however well applied, could have produced a Shakespeare, a Newton, a Beethoven, or a Michael Angelo; still we have this testimony from the mathematician just named: "If I have done the public any service, it is due to nothing but industry and patient thought." We have indeed but to glance at the biographies of illustrious workers, in whatever department of labor, to find that the most distinguished among them owe their success to indefatigable application and devotion to special tasks.

So with Mr Huntington, in the sphere of his great success, he has acquired power and compelled admiration by persistent, exclusive application of his strength to the perfection of his undertakings. Possessing sound judgment, tireless spirit, and indomitable will, and moving continuously, intelligently, and cheerfully towards a single, fixed, and high standard, it is not surprising that he should remove mountains, figuratively and literally. The magnitude of his achievements would excite less surprise if the man were better known in his strength, and could be seen applying his wealth of resource methodically and without strain to a well-defined purpose. He is more remarkable than all his works, for they are not the full measure of his capabilities. Without any disposition or ground for disparagement of others, who, among his associates, would have been a safe and competent man in his place—who so able as he, always consistent, single-minded, and intolerant of unbusiness-like distractions, to smile at cares and difficulties, and carry the burden of vital responsibilities with so little wear and tear?

Yet it would be difficult to find a man more considerate of others. Without affectation, he is the same Huntington now as formerly. Of all the men of his business circle he is perhaps the most accessible. No one coming with a legitimate object in view

is denied admission to him, and a are heard patiently and with discriminating consideration. He is so scrupulously careful to answer all proper communications addressed to him, that a sure way of securing his attention is to write him a letter.

Among those who call upon him at his business headquarters are people in all stations of life, from the most exalted to the humblest citizens of the land. His hours are precious, but he is invariably courteous, insisting only that his visitors come to the point of their business at once. And he is very little annoyed in this way, for the person who should try to impose upon him or engage him in empty talk must be a prodigy of impertinence and ingenuity as well, and who, finding himself pleasantly weighed and measured and stripped of indirection and verbiage, would find one call enough. He is fond of anecdote, and has an original way of telling a story for the purpose of clinching an argument or bewildering an adversary, his power being similar to and not less than that possessed by Mr Lincoln. It is a happy expedient, which he often finds effective in difficult negotiations, making himself impenetrable, and rarely, if ever, failing to obtain the advantage of position by throwing his adversary off his guard. Only recently a German capitalist, after an interview with him concerning a transaction involving many millions of dollars, was completely nonplussed, and naïvely remarked, "Mr Huntington seems to have been very successful in business, but he is a queer man. At the most important point in our negotiation he stopped to tell a story."

His self-control is so great that no one has ever seen him give vent to passion or show alarm at danger. During what is called the rich men's panic in New York city, in 1884, his imperturbability was subjected to the supreme test. During that crisis no man's reputation was safe, and the greatest distrust prevailed. "Is it true," asked a reporter of

Mr Huntington, "that you have suspended payment?" The annoyance caused him by this imputation upon an unimpeached credit of half a century was extreme, yet there was no perceptible change in the expression of his countenance. After a moment's deliberation he replied with full courtesy, but just a little dryly: "Young man, I have been in business nearly fifty years, and have always paid my debts; you will have to look somewhere else for a failure."

A prominent banker of New York, speaking of this remarkable period, said: "I consider that C. P. Huntington was the key of the arch that held up the people here all the way from May to the close of the year. It seemed to me as if all the imps at one time were trying to break him down; but he met all calls on him without wavering. Yet the shrinkage of his properties must alone have amounted to millions; still he never asked any special favors, and paid up whenever the money was wanted."

Mr Huntington, too, had some instructive comments to make upon the situation during these exciting days. "The number," said he, "of really great financiers in the banking business is small. The times when the release of money will benefit the community are the very times chosen by a majority of bankers to lock up money. What is their reserve for but for just such emergencies as the depression of 1884? Naturally the course they adopt precipitates disaster, and to it may be attributed many of the failures of good, honest business houses, which only need wise treatment on the part of the banks to enable them to tide over their temporary embarrassments; but such firms, through the weakness of what should be their bulwarks in times of trouble, are compelled to go to the wall, dragging down others with them, and involving perhaps a whole community in disaster."

As heretofore intimated, the element of faith, in the sense of self-confidence, which is rational and not egotistical, enters largely into Mr Huntington's com-

position. His temperament is hopeful, and perhaps sanguine in consequence; at any rate he borrows no trouble from apprehension. Having to pay out millions of dollars on the morrow, he has gone to bed not knowing how in the world he will be able to meet the obligation, but he sleeps as soundly as if he had the required funds deposited to his credit for the purpose. The emergency at hand, he meets it. He never fights with obstacles until he encounters them. One of his favorite maxims is, that whatever ought to be done can be done; and that it does not matter so much what you have to do, the important thing being how to do it.

This assurance, which is a source of tremendous reserve force, renders him bold, decisive, and withal calm and certain of his position when others fret, and in common parlance lose their heads. The fears that disturb capitalists generally have never given him any alarm.

The vexed questions arising out of the antagonism created between labor and capital he thinks ought not to exist, and can in almost all cases be removed if the supposed differences which divide the parties in interest be fairly presented. But with agitators, whom he regards as the prime cause of such mischief, he has no patience. He once said, after an impending strike on one of his lines had been averted: "There are no employés on my roads in whom I take more interest than in the engineers. I have a high regard for them, and on my trips like to go to the cab and talk with them. They are an excellent class of men in physique, intelligence, spirit, and loyalty, and if a case cannot be laid before them so plainly as to remove any cause of bitterness or discontent, there must be something wrong." Mr Huntington has always enjoyed the respect and esteem of his many employés, because of his appreciation and justice, as well as his unaffected and straightforward manner in dealing with them.

He has always been in sympathy with men who labor, especially so if they were subjected to unfair treatment. While he was friendly to the Chinese, it was not because they were Chinese, but he has frequently said that any one born of woman who obeys the laws of the country should have equal protection under its laws. "Cheap labor," continued Mr Huntington, speaking more particularly of the Chinese agitations in California, "is said to be one of the causes of communistic doctrines; but this is only another expression of the strife between providence and improvidence, thrift and waste, which has been going on ever since the world began. It is the effort of those who do not accumulate anything to obtain some of the savings of those who do. It seems as though it were ordered that wickedness and improvidence should not have the power of organization. I have no fear of any serious or lasting trouble from this source."

Mr Huntington's condemnation of the Chinese exclusion law he does not hesitate to express publicly. And when in 1890 congress was occupied with legislation intended to discriminate against the Chinamen still further, by requiring each of them, already in possession of every title to undisturbed residence in this country, to obtain from the census-taker a certificate of this right, failing to have which at any future time he would be considered as a trespasser, and forced to quit the soil of this our ostensibly free and generous domain, he denounced the measure with unqualified indignation.

Suppose the case reversed, and state it in this way, if you would get the force of his views on the subject: The Chinese government has ordered a census of the inhabitants of the Chinese empire, and as part of this proceeding it proposes that the census-takers shall make an accurate descriptive list of every American found in China on the day the census is taken. To every American thus present is to be

given a card of identification, and any American found in China thereafter, whether merchant, student, missionary, traveller, or laborer, without such card of identification, is to be deported at his own expense to the United States, or imprisoned for not more than five years; and shall be kept in prison until his deportation. After the date of the census no more Americans are to be allowed on any excuse to enter China.

And suppose China were to follow our example and shut out American merchants, travellers, and missionaries? We could not complain; yet such an act by the Chinese government would be savagely denounced in this country, and would cause very great loss and inconvenience.

Our diplomatic history was once the most honorable part of our national career, because we had dealt with nations as an honest and Christian people. The Scott act was disgraceful, and the next step proposed is both disgraceful and stupid.

He would not favor the unlimited immigration of Chinese, but he thinks it unwise to create irritation between a great nation like China and our own until some signs of danger should appear from such immigration. He sees no reason why the Chinese should be excluded, and more objectionable people from other nations allowed to come in, even if those others do have a vote. He is proud of his own country, because it allows the people of all nations to come and go, asking only that while they are here they obey our laws.

He feels a natural home pride in the fact that he had seen thoroughly his own country before he visited the old world. A few years ago he found it necessary to go to London on business. He was delighted with the vast capital, and expressed his admiration of it as a well-managed city. "The success of London," said he, "is assured by two things alone, if by nothing else. One is its magnificently paved

and well-ordered streets, the other its cab system. They are very shrewd and far-sighted, these Englishmen, and know well the worth of a dollar. Their conservatism is something wonderful. I think if you should give an Englishman a dollar for fifty cents, and on examination he should find that the dollar had a hole in it, reducing its value to ninety-nine cents, he would feel as though he had been injured. But they are excellent traders, and they make the whole world pay tribute to London."

In Paris Mr Huntington was less interested, perhaps because he had no special business to occupy his mind while there. "These Frenchmen," said he, "are a thrifty and saving people, and cultivate their country as I have never before seen a country cultivated."

From France he made a flying trip to Amsterdam and the Hague. For the honest toil, thrift, cleanliness, and economy of the Hollanders he could find only words of praise. Straining his eyes backward, as the carriage took him rapidly through the quaint streets of the Hague, he watched with intense satisfaction the gambols of a child in wooden shoes, who while hard at play kept her knitting in her hands.

In politics Mr Huntington began as a whig, when the party represented what he regarded as the great moral sentiment of the community; but upon the demoralization and death of the whig party he went with the free soil wing of the democratic party. When in 1852 the whigs introduced a clause in their platform apologizing for slavery, Huntington said: "This is the last that will be heard of the whigs as a national party." He has always acted with the republican party from its organization, although his friends say he is a republican who usually votes the democratic ticket. He denies this; but says that when the republicans have a candidate who is inferior to the democratic candidate for the same position, he cast his vote for the latter. Holding firm ideas

about the equal rights of all men, he has been ready with his influence and money to aid the party which in his judgment is the best for the whole people. His sympathy with and friendship for the negro has been manifested by frequent and large benefactions in their interest. Among these none stand out so prominently, as an illustration of wise and judicious charity, as the institution at Hampton, Virginia, called the Huntington Industrial works, where, it may be said, he has carried into a happy realization his practical ideas concerning the education of the colored man.

In 1877 his attention was drawn to the normal school there by the excellent results obtained. He had previously contributed liberally in its aid, and this year he added to his donations in order to found a permanent scholarship, the interest on which sum would forever pay the tuition of one colored student. Later he made special inquiries about a plan suggested for starting a saw-mill in connection with the institution. More and more pleased with the practicability of the idea, he looked carefully into the school organization, and had the legal title of the corporation to its property investigated. It was a period of philanthropic bubbles, but Mr Huntington at last became satisfied that here was a noble opportunity to elevate the negro in the direction most essential to his moral and physical well-being.

After contributing munificently to the improvements of the various other departments of the institution, in the year 1882 he provided a sum sufficient for the building and the equipment of the Huntington Industrial works, so named, not at his request, but by a voluntary act of the trustees. The history of the school's subsequent progress shows that the conception of the enterprise was a happy one.

In the Huntington Industrial works thirty-five colored students are employed, each of whom, by day labor and night study, makes a living, receives an

education, and acquires a manual skill of untold value.

These works are to the trustees most satisfactory, from the fact of being self-supporting, while industrial education, as a rule, is the most costly of all. Mr Huntington is the recipient of many grateful letters from the young graduates, who go forth yearly from the institution independent, self-reliant, educated citizens, and who have become useful examples among and educators of their less fortunate brethren. Their success is a cause of deep gratification to him, for it has proved his faith in the negro to be well-grounded, for, said he, "Let the negro once learn habits of thrift and economy, then give him a fair chance, and he will turn out a good and trustworthy citizen, able to hold his own anywhere."

The demands of charity made upon the conspicuously successful man of affairs are, of course, great, and the appeals to Mr Huntington are sufficiently numerous. In most of such cases his left hand knows not what his right hand does; but no one who is aware of the tender and generous sympathy which characterizes him would question either the volume or heartiness of his giving. An old acquaintance of '49 writes and asks for a little money, without which he must go to the poorhouse. "Well, well," Mr Huntington will say, "this man was once a clerk of mine, a real good fellow, who spent his money as he went along, and never had anything to show for it. I gave him $250 a month; then raised his salary, then he secured a position that brought him a large income, and still he spent it all. I used to tell him he would end in the poorhouse. Yes, that's what I used to tell him." But it leaks out after a while that he sent the petitioner, notwithstanding his impatience with improvidence and waste, an order on Huntington, Hopkins & Co. to pay the bearer fifty dollars a month, "only a little money to make his last days comfortable." Still, his purse is apt to close against

the appeals of those who live beyond their means. "If I had only fifty cents a day," he will say, "I would live on half of it, and so can other people."

His daily mail also brings him numberless descriptions of good things to be made by the combination of genius and capital, the writer professing his willingness to furnish the former if Huntington will put up the latter. Such allurements the financier declines, on the ground that he does not believe in capitalizing genius.

On the 12th of July 1884 Mr Huntington married Mrs Worsham, a native of Alabama, whose maiden name was A. D. Yarington. In this union were brought together two types of development that distinguish two widely different sections of the United States, each of which is marked by an intellectual and physical character that is superior in originality, independence, and strength, he being an exponent in his personality of the possibilities of New England stock, the eulogy of which is the history of the United States, she of rare beauty, imperial in form and carriage, and full of charity and tenderness, idealizing an aristocratic and scholarly ancestry peculiar to the best blood of the south. Though differing in the details of sentiment, opinion, and manner, owing to dissimilarity of early environment, yet strikingly alike in the sterling elements of character, they are at once the complement and supplement of each other, manifesting in mutual affection, loyalty, and appreciation the excellency and charm of perfect wedlock.

The children of Mr Huntington are Clara Elizabeth, the beautiful princess Hatzfeldt Wildenberg, and Archer Milton Huntington, a young man of magnificent physique, and possessed of fine mental gifts. He is an earnest student, devoting himself exclusively to literary pursuits.

High among the hills of Connecticut, in the quaint and airy old town of Harwinton, stands a beautiful chapel erected by Mr Huntington in memory of his

mother. In presenting the deeds to the property, October 22, 1887, he made a brief and informal address to those of his former townsfolk who came to witness the dedication ceremonies. In it the man stands out as he is. Every one who reads it will be impressed with its unaffectedness, its truth, and its honesty. In its simplicity is its strength, it comes from the heart, which is the source of all eloquence.

"I am glad to be with you here in this place of my nativity. I see before me many men and women whom I knew as children when I was a child, before I went out from this good old town of Harwinton. Years, more than half a hundred, have passed away since those days, and in that time great changes have come over us. Then I, and some of you, were barefooted children, and those that were then of middle age have passed on to that other land, and we who have stayed have become gray with years. In my childhood days my mother was here, and she often worked into the small hours of the night that her children might be comfortably clad on the morrow; and in the years that came later, her children worked so that her last days might be made, like herself, bright and full of sunshine; and in that was her reward. And as often as I have returned to these my native hills have I been made glad that this was the place where I was born, and that I was born poor: for I think that that was the reason, at least in part, of such success in life as I have been able to achieve. It was long years ago when I said to myself that what ought to be done could be done, and that success in life only meant labor with honesty of purpose and an intelligent economy; but I think most of the real joys in life come from doing good to others, in helping to raise those who fall, those who are below us to come up a little higher. Now as to this little chapel; I have built it because I wanted to build it for you who were children with me, and I also wanted to build it in memory of my mother, who was one of the best

women that ever lived; and I ask you to care for it, because I think it will do you and your children good; and I ask you to care for it also because it is in memory of my mother. I only hope it will give you as much pleasure in the receiving as it does the giver in giving."

I can readily picture to myself his striking and suggestive *personnel* on this occasion. Those who knew him only through his reputation as a conqueror in the war of commerce felt themselves in the presence of a great power—an aggressive force. To those who knew him well enough to take him all in all he was a manifestation of the truth that the mightiest are the tenderest. A massive figure, symmetrical and erect, slightly over six feet tall, his every movement bespoke domination and control. His hands dark and muscular, but well-shaped and comely, expressed his virile nature. Surmounting this stalwart frame is the magnificent head seen in the accompanying portrait, perfect in form and refinement of features, a head which we may travel a long way before finding its superior. From the expansive forehead the hair has retreated, and only a fringe of iron gray encircles the cranium on a line with the temples. The jaw, covered with a thick gray beard cut rather short, is square and solid.

Seen in three-quarter pose the countenance is rather stern and unyielding, and it is for this reason that the photographs of Mr Huntington fail to catch the expression that is so attractive to his intimate friends. Seen directly in front, the gray-blue eyes are kindly in their expression, and the light of an invariable good-humor shines in them. They question you with a penetrating look, and again beam with a swift intelligence. People who have met him for the first time have expressed an agreeable surprise upon finding him different from the picture they had mentally formed. Instead of being cold and uncompromising, they have found him a charmingly affable

man, full of a deep, practical earnestness, yet so buoyant in his spirits as to seem youthful, and above all, appreciative and sympathetic, or, as an old New England provincialism well expresses it, folksey.

Mr Huntington is not a society man in any sense of the word, though none the less sociable. Of simple tastes and strong domestic instincts, the serenity and comfort of his beautiful home are all in all to him. But, always buoyant and good-humored, he is ready at any time to accompany his family and take a hearty share in their social and other diversions. Wherever he is found he is the life of the company. His genial temperament and his never-failing wit naturally win for him, with the spontaneous recognition of others, a leading rôle in every party. Like most men of ample wealth, he has a city and a country residence, living during the winter months at 65 Park avenue, New York, and hastening with the first breath of summer to his homestead at Throgg's neck, in Westchester county, on the shores of the sound, where he remains until late in the fall. There, amid the stately trees, beneath whose lofty boughs the panorama of passing ships forms an unending picture, he surrounds himself with the things he loves best of all, and spends his limited leisure in unostentatious ease. Fond of country life, he expresses his taste in his strong, finely bred horses, his Alderneys and Holsteins, his thoroughbred dogs, and other stock. Loving equally well the beautiful in art, he covers his walls with costly paintings representing the best work of native and foreign artists. He is passionately fond of a good picture, and is a liberal though a discriminating patron of the arts, unhesitatingly paying a large price for what suits his fancy rather than for what the world may think about it. His collection of paintings represents the expenditure of at least half a million of dollars, and he still keeps on buying. Though modestly disclaiming everything in the way of a technical knowledge of art, and depreciating

his ability as a critic, it is nevertheless exhilarating to hear him discuss his paintings, for he comprehends and appreciates as few can the spirit of each of his masterpieces. His comprehension of human nature is so accurate and profound, and his sympathy so strong and warm, that he analyzes the ideas embodied in a picture with a clearness and vividness that are intuitive and eloquent. The creations of genius which adorn his home are not to him mere ornaments; they have a life into which he enters. His favorite among all of his pictures is a representation of two beautiful children, who, just waked up from their wholesome and untroubled slumbers, idealize the freshness, innocence, and sweetness of babyhood. "My children," he fondly terms them, and he salutes them as tenderly as though they were of flesh and blood. To children he seems scarcely older than themselves, so unreservedly does he enter into their little games and antics, even to rolling with them on the floor, if they wish. Apropos of this, his unselfish and affectionate interest in friendless boys is a notable indication of the man. They frequently call on him to ask for employment, and it is singular and pleasing to know that he will give up to conversation with them whole hours at times, when these hours have a large commercial value. Had he no sentiment in the matter, he would find it cheaper to give them hundreds of dollars, and dismiss them with a word. Of course he can find work for but few of the boys that come to him, but his talks with them have often revealed opportunities which they never dreamed of, and sent them out from his presence bold and hopeful, to take hold of whatever lay nearest to them, so long as it was honest labor. His experience and his kindly manner render him an agreeable and helpful adviser. In more than one instance has he been the means of making a useful man out of a boy with the "right stuff" in him. Where such a result has come from

his aid I verily believe he enjoys the contemplation of it more than the building of a new railway.

A boy stood before him one day in his private office while a crowd waited in the anteroom. He could not give him work; this he had told the lad, who, being destitute, far from his home in the country, and without a relative or friend in the great city of New York, saw no hope for himself save in the fatherly and sympathetic man, who, step by step, was getting closer and closer to his heart, and finding out all about him. When there seemed no alternative for him but a direct appeal for aid, for he was hungry, he said: "Mr Huntington, won't you let me have fifty cents to get dinner?" "Fifty cents!" replied Mr Huntington, with well-feigned amazement; "why, you could live in New York a whole week on fifty cents." And he showed him how he could do so if need be, and added: "If I were to give or lend you fifty cents it might ruin you. You should never borrow unless you can give good security; you can't do that. And there is nothing in the world so bad for a boy starting out in life as to depend on anybody but himself for the money that he needs and can earn. I would give you fifty cents, because you have a good face, but I am afraid to. Your worst enemy could not do you a greater harm than to give you money. If you will, you can go out and earn it, and I know you will. You want to be your own master. You want to be independent. You can't afford to owe anybody any money. You want all your strength and courage, don't you? Yes; well, charity or borrowed money would make you weak and dependent. Now, I'll tell you. As I came along this morning I saw a lot of men paving the street with cobbles. I'll tell you where they are working. You go there and say to the head man you are hungry and want to work long enough to earn three cents, and that he can tell you when he thinks you have done enough work for that much

money. He'll give you the job, surely. But there are other ways of making a start. Follow the first cart you see loaded with coal. Be on hand when the cart stops, and help to stow the coal away for whatever you can get. I like your face. You are a good, bright boy. You can get on if you will, and I am sure you will." The lad went away bold and strong, and it was not long before he was carrying, in a dry-goods box, a load of coal up to a fifth story lodging. His first job made him master of himself, with seventy-five cents to demonstrate the fact. Mr Huntington did not know just what had become of his young friend from the country until several years had gone by, when the latter accosted him one day as he was passing, and with grateful acknowledgments told him his story of substantial success already, and of flattering business prospects for the future. The moral involved was so practically brought out that some benevolent people in New York prepared a tract with this incident for its text. The good that it has done and ever will do no one can measure.

Mr Huntington is a reader of books, and has a large library of well-selected volumes. He has known how to use the leisure at his command wisely, and has made himself familiar with the best authors. It is not strange that the boy who found *Plutarch's Lives* an entertaining friend of his solitary moments should through life retain a great love for history, and learn to know intimately the great men who have impressed their personality upon the world; but it seems almost incongruous that a man who during his whole life has been engrossed in commerce should find consolation and delight in the poets. Yet such is the fact, and it affords a pleasant approach to the sunny side of this strong and pronounced character. Poems that sound the depths of the human heart, appealing to its sympathies at once tender and noble, fascinate him. Among his favorites is George Crabbe. The notes of war and strife, and the praises of valor fall upon

his ears rather indifferently; but in the babbling of the brooks, and the soft murmurings of the great fir-trees in the Sierra, among which he loved to wander alone in the earlier days of his pioneer life, there is the perpetual voice of music and song.

Like most men of marked character, he is reverential; and in the presence of nature contemplates with awe and a keen sense of his littleness these things which he cannot control or comprehend. If he has no positive religious opinions of his own, he never disputes the right of others to possess and express theirs, believing it to be wholesome that everybody should have the privilege of enjoying his own faith. Although his parents were presbyterians, he has himself leaned somewhat toward the universalists, a tendency to sectarianism influenced, no doubt, quite as much by the preacher as by scripture, for he had a profound respect and admiration for his friend Dr Chapin of New York, and enjoyed hearing him talk, because he said things that one had to remember. In other words, Mr Huntington is a man of judicial mind, a patient listener to the evidences of christianity, sympathetic in disposition, and appreciative of all who, honest in belief, make religion an actuality by leading pure lives. He is not disputatious in any regard, and least of all with reference to that which transcends his reasoning powers.

Mr Huntington calls himself unlettered, but I consider him educated in the broadest and deepest sense of the term. No collegiate course could, in my judgment, have enabled him to succeed as fully in the enterprises undertaken by him, or qualified him to fill as useful a position in life, as he has grown into by his own native force and individual efforts. Indeed, the chances are that a collegiate education, particularly a classical course, would have proved the ruin of his finest qualities, originality and independence. For the accomplishment of all the great things he has done, not only a great nature was

needed, but a mind asserting itself largely in its own way, and unhampered; in contrast with this force a mere artificial product of the schools is a lame and impotent creature.

Had his environment been suitable, he would certainly have earned success in scholarship, or any other department of life, and would have won, as in railroading, a leading place among the first men of the nation. What he has achieved is a sufficient criterion of his capability. His life affords an instance of exceptional faculties, symmetrically developed in the school of observation and experience. "Heaven helps those who help themselves," as exemplified in his life, is a well-tried maxim. It embodies, in a small compass, the results of vast human experience. The spirit of self-help is at the root of genuine growth in the individual, and as an element in American character it constitutes the strength of our nation. Mr Huntington furnishes an example of what all may accomplish according to the measure of their natural gifts, by the power of patient purpose, resolute working, and steadfast integrity, for their own proper aggrandizement, and, at the same time, for the still wider benefit of others. He must, therefore, be judged by his own standard.

There are those whose claim to distinction rests upon the place they fill in the public mind by virtue of official position. At no time in Huntington's life could he be classed with the politicians. This has been due largely to a singular absence in his mind of any desire for distinction merely for its own sake. If at any time he has been beset by personal ambition, it has been for the accomplishment of large undertakings in finance and commerce. High station in public life, in the common mind, justifies the claim to individual distinction. The discharge of public functions affords a standard of comparison among men who have filled the same office. A president of the United States may leave the impression of his per-

sonality upon the history of his country, and the measures of public policy inaugurated by him may be brought into comparison with the policies of the long line of presidents in which he stands. A senator may disclose the great qualities of his mind by originating measures of statesmanship; in short, official stations, having a direct bearing upon the affairs of all men, bring those occupying them under general observation. The fact that a man is president, or United States senator, carries with it the presumption that he possesses fitness for the office. The extent to which this presumption is fair no one knows better than Mr Huntington, for there are few notable men in the politics of the nation during the last twenty-five or thirty years whose measure he has not taken. But there are many to whom such a classification among the presumptively great is sufficient. Of one who has achieved wealth by great enterprises, as broad in their beneficence as the entire basis of modern civilization, it may be said that he has won a more solid distinction than can possibly be conferred by mere official prominence.

The history of human progress presents a constant succession of dramatic spectacles. The representative thought of any time determines the dramatic plane. The chief actors become the heroes of history; to them are committed the great rôles, and around them revolve the minor parts. Thus the history of any distinguished individual, and the times in which he achieved distinction, are so completely introactive as to lose almost entirely dramatic coherency, unless presented at a single view.

The distinguishing feature of the times in which Mr Huntington has borne so conspicuous a part was that of material development. During the past fifty years, and covering the period of his prominence upon the stage of public affairs, the American republic has grown into a vast empire of wealth and population. Its strides have been marked by a constantly advanc-

ing frontier, and vast areas have been laid under the subsiding sceptre of industry and enterprise. It will remain forever a remarkable period of our country's growth. Hereafter its progress will be by less phenomenal steps. The development of the past fifty years has produced on this continent conditions in some respects more nearly analogous to those of the older civilizations. The tidal wave of progress has already passed over the most fertile and most important areas of national domain. The social, financial, and commercial conditions of the future will be less alluvial in their character, and resemble more the granite formation of longer historic periods. The future history of our growth must supervene upon developed rather than primitive values. The past fifty years of our history will therefore, as already indicated, mark the most phenomenal period of our growth. It was a time rich in opportunities for distinction. Its history when fully written will present a succession of eras far more interesting in their dramatic action than the crimson pages which record the triumph of arms or embellish the annals of conquest. In common with all great historic eras, it will not be wanting in great personalities; men whose strong character and symmetrically rounded greatness appear as the controlling moving spirits of the time; men to whom were committed the great parts of the actual drama as the great parts on the stage are committed to the highest genius; and among these the name of Collis P. Huntington will take rank second to none.

To have filled the most exalted station among men can be of itself, however, only an unsubstantial achievement, if the virtues which led to that exaltation, as exemplified in one's acts, were confined to the mortal limits of existence. Were the indestructible forces engendered and applied by the most powerful and best man in the world re-distributed at his death, his existence would not be superior only in finite value to that

of the weakest and most insignificant of his contemporaries. True distinction is tested by the lasting and infinite quality of our acts. A rare individuality, the organism of an age, should be transmitted in its entirety as an actual and ever-acting power for good among our fellow-beings on this earth. This is an immortality upon which, being terrestrial and tangible, all may agree. If the spirit of the great actor can be breathed into a perpetual and universal monument, such as it is the highest function of the student of character to erect, and save the results of a useful life from that dissolution which no pen can arrest, the individual intelligence, the moral agent, the social factor shall outlast even the hills, for the edification and delight not only of those who personally cherish the name about which this history clusters, but coextensively also, for the help and admiration of the entire brotherhood of man.

CHAPTER III.

ROUTES AND TRANSPORTATION—CALIFORNIA.

ABORIGINAL AND PASTORAL CALIFORNIA—THE MEXICAN CARRETA—THE ERA OF GOLD—STEAMBOATING ON RIVER AND BAY—BOAT-BUILDING—COMPETITION—DISASTERS—CALIFORNIA STEAM NAVIGATION COMPANY—PROSPERITY AND RAPID DEVELOPMENT—NAVIGATION OF THE COLORADO RIVER—FREIGHTING—WAGON-ROADS AND WAGON-ROAD TRAFFIC—EARLY FERRIES AND BRIDGES.

CHILDREN of earth have no conception of transportation, and the ideas of the Franciscan fathers, who introduced beasts of burden in California, were but little in advance of them. True, they had horses, oxen, and the carreta, but no wagon roads.

Before mining was begun in California, and extraordinary requirements for transportation were called for, horses were slaughtered by thousands simply to reduce their numbers; but their value rose with their usefulness; and although the sullen-tempered and often too vicious Californian horses were less esteemed than imported stock, they became a source of wealth to their owners. When overland immigration set in, on a number of ranchos purchased by or granted to Americans were placed the superior draught animals of the United States, with the wagons which had rolled all the way from the Missouri to the Sacramento. In the autumn of 1848 caravans of ox-teams with wagon-loads of provisions, tools, and lumber, pioneered their way into California from Oregon, and were eagerly purchased for transportation by the sea-brought gold-seekers and merchant-adventurers who had cargoes for the mines. But owing to the want of improved wagon-roads, pack-animals were chiefly relied on, and particularly the mountain-scaling mule

brought a good price for his qualities of toughness and surefootedness.

While this was the condition of land traffic no communication by water could be said to exist, although Captain Sutter of New Helvetia kept a schooner of seventeen tons which he had some time purchased from the Russian American company. This launch had an Indian crew, and was used for trading purposes and also to bring letters or news from Yerba Buena. But the common carrier was unknown in the land before the advent of the gold-seekers.

The strict chronicler must not forget to mention that the schooner *Isabella*, of the Hudson's Bay company, spent eight days in the Sacramento river in 1839, sailed up to Sutter fort and afforded the natives the sensation of beholding this white-winged stranger from they knew not where, and whose mission was to them a mystery.

In October 1847 the Russian bark *Nosledniich* came down from the north, having on board a small steamer which had been disjointed for the convenience of stowing. It was owned by Captain William A. Leidesdorff, who had it put together and set afloat to gather hides, and perform any profitable service. It was never properly christened according to shipmasters' customs, but was commonly known as the *Sitka*. It made one trip to New Helvetia, starting November 28, 1847, and was sunk by a southeast gale the day following its return some time in December, where now is Battery street, San Francisco. It was hauled up by oxen to the present Montgomery street; the engine was taken out and the boat altered into a schooner-yacht, which was christened the *Rainbow;* after the discovery of gold it ran as a packet on the Sacramento river.

Previous to the gold discovery at his mill, Sutter had in his service the *White Pinnace*, an open yacht-boat, rowed by six aboriginals, which in 1847–8 ran

in connection with a boat from Yerba Buena "as punctually as your Marysville boats do now with the San Francisco steamers," said a former agent of the line. The *Indian Queen* was a sloop of ten tons, commanded by Perry McCoon, which in busy seasons made occasional trips up the river. These vessels ran up the Yuba as far as New Mecklenberg, now Marysville. The Mormons in San Joaquin valley in 1847 owned a small sloop, Wimmer master, which navigated that stream; and Peter Lassen used to come down from his rancho once or twice a year in a dugout made from the trunk of a sycamore tree, and this completed the mosquito fleet of those years. The points at which the trading vessels touched were Nicholas Algiers' place, the embarcadero of Bear creek; Hardy's, at the mouth of the Feather river; Sutterville, Brazonia, Montezuma, and Benicia. In 1848–9 a wagon ran between New Mecklenberg and Daniel Silles' rancho in the upper valley of the Sacramento, which connected with the sloops, and this is probably the earliest wagon route for the use of the public in California.

The schooner *Providence*, of about 100 tons, was the next common carrier; and in March 1849 the Chilian brig *Eliadora*, owned by Sam Brannan, and the Peruvian bark *Guipuzcoana*, owned by Hensley, Reading & Co., both of a tonnage exceeding 250, ascended the river to the newly laid out town of Sacramento, where they were deserted by their crews, and left to decay. The next square-rigged vessel to ascend the Sacramento was the bark *Whitton*, Captain Gelston, of 241 tons, which in May 1849 went up with her royal yards crossed, drawing nine and a half feet of water, in seventy-two hours from San Francisco, "a feat unprecedented in river navigation," said the Placer *Times* of May 13, 1850. She carried up the first cargo "direct from the United States." Before midsummer there were as many as twenty vessels at the Sacramento landing, and from June to September a regular line of schooners plied between that point and

San Francisco. In the latter half of the year steam on the rivers began to take the place of oars and sails.

A stern-wheel scow was built at Sutter's embarcadero in September 1849, owned by Simmons, Hutchinson & Co. and Smith, Beasley & Co. of Sutterville, to run on the river above the mouth of the American. Her first trip was to Coloma, and on her return she struck a snag, and was sunk, but was afterward raised, refitted, and her name changed from *Lady Washington* to *Ohio*. The first side-wheel steamer on these waters was the property of the Boston and California Mining and Trading expedition, which incorporated with a membership of 150, each member subscribing $300. With the resulting capital the company purchased the ship *Edward Everett*, of 700 tons, loaded her with an assorted cargo, in which was a boiler, engine, and machinery, with lumber to build a small steamboat. The frame of the boat was worked out on the deck of the ship after striking the trade winds this side of Valparaiso. The *Everett* arrived in San Francisco bay July 6, 1849, and the same month, after the cargo was disposed of, went up to Benicia, where the keel of the little steamer was laid on the 13th. On the 12th of August, being completed with the exception of her boiler, she was launched, and made her trial trip on the 15th. She made three trips to Sacramento, when she was purchased by some quartz-miners from Nevada City, who transferred her machinery to their mine, where it was used to run the first steam quartz-mill in the state. The hull was used as a ferry-boat at Frémont, twenty miles above Sacramento. There has been a controversy about the name given to this steamboat. By some she is called the *Pioneer*, and by others the *Edward Everett, Jr.* She was about eighty feet long, and had a capacity of sixty tons. Her history from first to last well illustrates American enterprise and readiness of invention.

The next side-wheel steamboat in the inland waters of California was also brought out by ship, and put

together here. She was named the *Sacramento*, and ran between that city and New York-of-the-Pacific, a town located near the mouth of the San Joaquin, and which never became distinguished. There connection was made with the schooner *James L. Day* and others to San Francisco. She was partly owned and was commanded by John Van Pelt, and her owners realized from her sale the sum of $40,000. Soon after followed the *Mint*, a small affair; then the propeller *McKim*, Captain Brenham, of 400 tons burden, which was received on her first trip to Sacramento with shouts of joy, cannonading, and speeches. The *McKim* was sent from New Orleans in 1848 via Magellan's straits, and did not arrive until late in 1849. She was sunk near Benicia in the summer of 1850, but was raised, and sent out into the ocean. She was once beached in a gale at Crescent City, but floated gently off on the next tide, and was in San Francisco before the arrival of those sent thither to report the disaster.

Closely following her career on the river came the *Senator*, Captain Lafayette Maynard, of 500 tons, owned and brought out to this coast, via Cape Horn, by Jmaes Cunningham of East Boston, afterward father-in-law of D. O. Mills. After an uneventful voyage, she arrived on the 27th of October, 1849. The sluggishness of the *McKim* caused the *Senator* to be preferred by passengers. Both boats made a great deal of money. During her first year the *Senator's* net profit was $60,000 a month, with fare thirty dollars to Sacramento, ten dollars extra for a stateroom, forty to fifty dollars a ton for freight, and two dollars for a meal. These prices were lowered a year or two later, to ten dollars passenger fare to Sacramento, and eight dollars a ton for freight.

The next boat that appeared in these waters was the *Lawrence*, brought out by a New Bedford company in November 1849, and put on the route between San Francisco and Stockton, but subsequently sold to another company, and sent up the Feather river to

Marysville. Above Feather river, on the Sacramento, was running the *Lucy Long*, named in admiration of the negro melody whose refrain was,

"O, take your time, Miss Lucy,"

and it is said that this craft, which was a flat-bottomed scow, did take her time, being nine days in making a voyage from Benicia, where she was built, to Sacramento. Her passengers having no protection from the weather, which was inclement at this season, except that afforded by a shed erected over the engine, found the excursion anything but agreeable.

Next after the *Lawrence* was the *Linda*, followed quickly by the *Gold Hunter*, 175 feet in length and 26 feet beam, with two spacious cabins and berths for 100 passengers. Conillard was her agent and Joseph Spinney master or first mate under Conillard. T. A. Hall afterward commanded the *Gold Hunter*. Steamboats multiplied with marvellous rapidity in 1850. For some time after shipping began to arrive and steamers were running to Sacramento and other towns, there were no wharves to accommodate commerce. In this exigency a barge was rented at $150 a day, and employed in lightering vessels. Such a barge was sold in 1849 for $4,000 to a company organized to land cargoes, while on the same day a large three-masted ship sold for $3,000, being of less value than the lighter. The demand of course regulated the price.

The first ferry-boat between San Francisco and Oakland was a little side-wheel steamer—the *Hector*—Captain Brown, in 1849. The *Dolphin*, little larger than the fish it was named after, ran between San Francisco and Napa in 1850. The Contra Costa Ferry company was organized by Charles Minturn, who came out on the *Senator* as agent for her owners, and who put on the iron steamboat *Erastus Corning*, which was brought out from the east in pieces and put together here. Subsequently he had running across the bay the steamers *Contra Costa*, *Red Jacket*,

and *Jack Hays*. Minturn died in 1873 at which time the *Contra Costa*, *Clinton*, and *Petaluma* were still owned by the company he founded in 1849.

The rapidity with which boats and vessels were placed upon California waters is almost past comprehension. The *Alta* of August 31, 1849, gives the following names of sailing craft plying upon the Sacramento and San Joaquin rivers: *Kanai*, *Odd Fellow*, *Plover*, *Rialto*, *Olivia*, *Constellation*, *Felix*, *Iowa*, *Carolina*, *San Blasina*, *Adelia*, *Mazatlan*, *Empire*, *Eclipse*, *Valasco*, *Phoenix*, *Sagadahock*, *Elbe*, *Liberto*, *Chance*, *Spry*, *Rainbow*, *Alice*, *Veloz*, *Lola*, *Union*, *6th June*, *Zack Johnson*, *Laura*, *Emily Jane*, *Louisa*, *Nuevo Hermanos*, *Milman*, *Plymouth Star*, *Mary*, *Charles and Edward*, *Diana*, *Sophia*, *Roe*, *Ann*, *Sea Witch*, *Patuxet*, and *Enterprise*.

The construction of small sailers was extensively carried on, and in 1850 important works for the construction and repair of boats of all classes were in operation in the suburb of Happy valley, fronting the bay of San Francisco, south of Market street. Most of the work done here was in putting together numerous steamboats, the materials for which were sent out from the east by sailing vessels. Some, however, were built altogether, except the engines, on the ground. The steamer *Tehama*, 120 feet in length, was designed and completed ready for her machinery in twenty days, and was safely launched by her owner, Captain Farwell, May 10, 1850.

Following are steam vessels employed in 1850:

VESSEL.	TONNAGE.	VESSEL.	TONNAGE.
Senator	755	Phoenix	24
Gold Hunter	435	Linda	52½
El Dorado	153	New England	21
McKim	326⅔	Lawrence	36¼
Hartford	251	Star	20
Governor Dana	67	Excel and Scow	8
Sacramento	38½	Etna	19
Yuba	28	Jack Hays	42
Steamers	16.	Total Tonnage	2,269¾.

If sailing craft multiplied so did steamboats. These were chiefly at first of small size and capacity, but their number made up for any lack of tonnage. With the high rates of freight prevailing and the immense volume of traffic, it became apparent that steamers could be employed at a profit, notwithstanding the great cost of fuel and of their voyage or transportation around the Horn. Many of them indeed cleared their first cost within a year or two, for freights for short distances averaged nearly one dollar a ton per mile, and the charge for passengers was about in the same proportion.

Sea-going sailing-vessels as well as sea-going steamers ran up as far as Sacramento to unload their cargoes. In 1850 there were lying at the landings for this place the *Crescent*; the barks *Dudley, Agnes, Dimon, William O. Alden, America, Laura Snow, San Francisco, Success, Anna Reynolds*; brigs, *Forest, Christina, Ceylon, Globe, Margaret, Metropolis, Anna Julia, Crocus, G. W. Cater, Arcadian, Perfect, Quaddy Belle*; brigatines, *Wolcott, Cayuga, San Jacinto, Ruth, Samuel French, Amelia, Agate*; schooners, *Lambert, Suydam, Ada Marye, Curlew, Sarah Lavinia, Elizabeth B., Montague, E. L. Frost, E. A. Slicer, Chesapeake, Francisco, Santiago*, and *General Worth*, besides the abandoned vessels *La Grange* used as a prison, and the *Guipuzcoana, Orb, Eliza*, and *Elisdon*, used as storeships. On the north bank of the river were the barks *New England, William Joy, Natalie, Exleta, Ninus, Perseverance, Bolton, Linda, Harriet Thompson*; brigs, *Gulnare, Sterling, Tecumseh, Sea Eagle, Hodgson, Oneida*; schooners, *Mexican* and *Eugene*, the total tonnage of all of which added to that of the steamers was 14,475.

Sacramento was in early mining times the inland metropolis of California, although as mining discoveries extended other points became termini of river navigation. Thus Stockton was the capital of the southern mines, and had its lines of vessels and steamboats. The first navigation to Stockton was per-

formed in 1848 by whale-boats belonging to C. M. Weber. These were followed by the sloop *Maria*, owned also by Weber, followed by numerous sailing-vessels, which being abandoned and dismantled in the stream, obstructed navigation to such an extent that the merchants of Stockton in February 1850 petitioned Weber for their removal, the town-site belonging to this enterprising pioneer. The first steamer which visited this port was the *Merrimac*, in August 1849, which was built in Newburyport, Massachusetts, taken to pieces and shipped to San Francisco where it was put together again. Following soon after were the *Mint* and *Maunsell White*. The *John A. Sutter*, Captain Warren, was put on the Stockton route about the same time, and was withdrawn in June 1850, having netted her owners $300,000, and while on a trip to Marysville not long after exploded her boiler and became a total wreck. The *El Dorado*, a side-wheel steamer, Robertson captain, took the place of the *Sutter*, under the same captain, charging $18 cabin passage, $12 deck passage, and $20 a ton for freight. Traffic increasing, the *William Robinson*, Charles Emmerson captain, was put upon the route in June 1850, and the *Mariposa*, Captain Farwell in July—the latter as an opposition to the two former boats, which had combined to keep up prices. Stockton merchants agreed with the *Mariposa's* captain to give him all their freight at a reasable rate if he would run regularly on this route; but their hopes were dashed by the manœuvre of the combination in putting freight down to four dollars a ton, when the *Mariposa* joined the combination and prices went up to former figures. In 1851 there followed the *Union*, Captain Thomas Seeley, in January, and the *Sacramento* in October. The latter exploded her boilers November 1, 1851, as she was leaving her wharf in San Francisco, heavily loaded and crowded with passengers, over fifty persons being killed or severely injured. On the same evening the *Mariposa* collided with the

West Point, Captain D S. Kelsey, in Suisun bay, and sank to the water level, but her passengers were safely transferred to the *El Dorado*. The *Tehama* took the place of the *Sagamore*, also reducing the fare one-third. In December the *Erastus Corning* was placed upon the San Joaquin, and the *Mariposa* being repaired resumed business in 1852. The *Erastus Corning* put deck passage down to $1.50.

The Yuba river had also its share of the early transportation business, and began it even earlier than the San Joaquin, for in April 1848 an advertisement appeared in the *California* signed by T. Cordua, to the effect that he would run monthly a "safe and commodious launch" from New Mecklenberg, to San Francisco, touching at several points along the route, which connected at the upper and with "a horse-wagon," which ran regularly to Mr Daniel Silles' in the upper valley of the Sacramento. Why to Mr Silles' does not appear, but it is fair to suppose that Mr Silles owned the wagon, and besides liking to get the monthly news from below, he made a few dollars.

The early part of the winter of 1848–9 being a dry one, and the water in Feather river very low, vessels could sail up no farther than the mouth of this branch of the Sacramento, where cargoes were landed for the northern mines. In the spring, however, heavy rains having fallen, whale-boats carried passengers up as far as Johnson's crossing of Bear river, passing over inundated lands, and a number of vessels unloaded at the mouth of Yuba river, where a city had been laid out. By July the river was again low, a launch of fifteen tons, belonging to Nicolaus Allgeier being the best means of freight transportation to Yuba City or Marysville, while whale-boats continued to carry passengers. However, in the autumn schooners which had come around the Horn went up Feather river as far as Nicolaus, and a government vessel with supplies for Camp Far West landed its cargo at the same place, whence it was carried in wagons to the fort.

The winter of 1849–50 being a season of flood greatly assisted transportation, and steamers having become sufficiently numerous to seek out all the travelled routes made their appearance at Marysville. An association called the Linda company, which came around Cape Horn in a vessel named *Linda* late in 1849, brought with them the machinery for a small, stern-wheel steamer, which was transferred to a scow at Sacramento, and the steamer *Linda* was the result, which was immediately loaded with a cargo for a merchant at Barton bar on Feather river, and made two trips before the year was out, David Hall being captain. She was soon followed by the *Lawrence*, which has disputed priority with the *Linda*, and in April 1850 by the *Governor Dana*, a stern-wheeler of about eighty tons. This boat was built by General Veazie and Nathaniel Lord at Bangor in 1849, to ply on the Penobscot river in opposition to a monopoly to which the legislature of Maine had granted the exclusive right of navigating that stream. An injunction being issued which prevented her running on this river, she was taken to pieces, and sent out to California on the bark *Rio Grande*. On being reconstructed she was commanded by W. R. Young. Such curious individual histories had many of these early steamboats.

In April 1850 the fare to San Francisco from Marysville was thirty-five dollars. On the 27th of August there were twenty-four sailing-vessels at the landing at Marysville. In the latter months of 1850 the Feather river was again low, and steam navigation was suspended, sail-boats and stages taking passengers above Sacramento until November, when the *Governor Dana* resumed business on this stream. In 1851 the *Marysville*, Captain J. A. Payne, ran twice a week between Marysville and Sacramento, and the *Miner* weekly between Marysville and San Francisco. The Union line also ran the *Confidence*, Captain J. P. Gannett, and the *Wilson G. Hunt* on the

same route. The *Hunt* was sent out from New York in March 1850, but meeting foul weather, and having to put in to the Bermudas for repairs, arrived late in the year. She was commanded by Captain E. C. M. Chadwick. In July the *Orient*, which was built in San Francisco expressly for the route between Sacramento and Marysville, started on its mission in July 1851. During the twenty-four hours previous to August 2d seven steamers with full freights were landed at Marysville, namely, *Kennebec*, *Yuba*, *Marysville*, *Maunsell White*, *Benicia*, *Orient*, and *Game Cock*. Later in August the *Gabriel Winter* ran between Sacramento and Vernon City, connecting with stages for Marysville. The *Fawn*, a small steamer, was blown up on Feather river August 16th. In November the steamer *Camanche*, owned by Captain J. A. Grant, who commanded her, and Major P. B. Reading, and which was built at Pittsburg for shipment to Sacramento, was put on the upper Sacramento, touching at Marysville. The *Jack Hays*, Captain W. Maine, was also on this route, and was the first steamboat to ascend the river to Tehama.

So crowded was the river front at Marysville that the court of sessions ordered to be prosecuted all persons who kept boats and vessels at the landing an unnecessary length of time, to the prejudice of the convenience of others. Yet in December the *American Eagle* of the Merchants' line, Captain William M. Lubbock, commenced running on the route between San Francisco and Marysville; and in January 1852 the *Urilda*, Captain Frisbie, twice a week. The *J. Bragdon*, Captain Thomas W. Lyle, also made regular trips to San Francisco, while the *Fashion*, Captain W. H. Taylor, belonged to the mail line between Sacramento and Marysville. During January and February 1852 the *Wilson G. Hunt*, *Confidence*, and *New World* were laid up for repairs.

The *New World* was one of several steamers which, like the *Hunt*, *Antelope*, and *Senator*, rounded Cape

Horn, and plied either ocean or inland waters, but was best adapted to the latter service. The commander of this boat was Captain Hutchings, and she was said to have run away from New York creditors. However that may be, she had a varied experience altogether, and has served in a number of companies in California, and as far north as Puget sound and British Columbia.

With all these steamers and many not yet mentioned crowding the California bays and rivers, all eager to secure a share, and a large one, of the golden profits, active competition must ensue. Before 1851 there was business for all, but after this period there were more steamboats than were needed to take care of the business—more, at all events, than could ask from twelve to twenty dollars a trip to Sacramento, and nearly twice that to Marysville. In 1852 the usual fare was five dollars; often it was two or two and a half, and when the strife was greatest people were invited to travel for nothing at all In May 1852 a combination was made to raise fares and freight rates. Formerly freight had been carried to Marysville for fifteen dollars a ton weight, while now a ton measurement was charged the same. A number of different "lines" under various names divided the patronage. Racing was indulged in, and sometimes with disastrous results. The steamer *R. K. Page*, while trying her speed with the *Governor Dana*, exploded her boiler March 22, 1853, killing and fatally wounding a considerable number of passengers, and all her officers and people except the bartender. She was rebuilt, and put on the Sacramento and Marysville route under the name of *Nevada*. The *Plumas*, a small steamer, owned by E. G. Davis and A. A. Redington, which appeared in August, having been built at Happy valley, was wrecked in 1854 by running on a snag in the Sacramento river, and totally lost. The *Pike*, built in San Francisco in 1853, was a larger and handsomer

vessel than any preceding it, except the sea-going steamers before mentioned.

The steamboats not already named which were employed in California inland waters in 1853 were the *Major Tompkins*, D. B. Moseby master; *H. T. Clay*, William S. Murray master; *California*, Boobar master; *San Joaquin*, William Moore master; *Santa Clara*, Warren master; *New Star*, Sampson master; *Jenny Lind*, P. E. Le Fevre master; *Helen Hensley*, Chadwick master; *Julia*, Conklin master; *Hartford*, A. J. Averill master; *Daniel Moor*, W. H. Taylor master; *New Orleans*, Wakeman master; *Antelope*, John Van Pelt master; *Free Trade*, Isaac Warren master; *Gazelle*, John Farish master; the *Gem*, *Belle*, *Cornelia*, *Thomas Hunt*, *Missouri*, *Star*, *Latona-Firefly*, *Phœnix*, *New England*, *Bute*, *Grinnell*, *Goodman Castle*, *Martha Jane*, *Boston*, *Colusa*, *Victor Constant*, *Kennebec*, *Commodore Jones*, *Georgiana*, *Ion*, *Etna*, *Libertad*, *Cleopatra*, *Eudora*, *Empire*, *Express*, *Caleb Cope*, *Willamette*, *Enterprise*, *Martin White*, *Dimon*, *Surprise*, *Queen City*, a large and fine steamer built as an opposition boat by the citizens of Marysville, and the *Defender*, also an opposition craft. Of twenty-five steamboats running on the rivers in 1853, four had an aggregate tonnage of 5,075, and a value of $1,086,000.

Of these early steamboats, hastily constructed and imperfectly officered, not amenable to law, or, if so, disregarding it at pleasure, comparatively few met with disasters. In 1850 the *Phœnix*, *Mission*, *Star*, *Martha Jane*, and *Sacramento* were snagged on the upper Sacramento, and the *Marion* had the same ill-fortune at a later period. The *Camanche* was sunk by colliding with the *J. Bragdon* January 5, 1853. Ten lives were lost, and the cargo destroyed. The steamer was raised, and being refitted was put on the line again. The *Helen Hensley* burst a flue while lying at her wharf in San Francisco, with no loss of life. The *Pearl* was blown up near the mouth of the American river, coming down from Marysville with a hun-

dred passengers on board, sixty-seven of whom were killed, and many wounded. Notwithstanding the recklessness of the times, the steamboat losses on the Sacramento and San Joaquin rivers bore no proportion to those on the Mississippi and Missouri during the same period. Greater care and improved machinery in a great measure overcame the danger of explosions, although on the 4th of April 1857 the *Contra Costa*, a comparatively new boat, burst her boiler, killing about a dozen persons, and severely wounding many others. On the 29th of September 1866 the *Julia*, in the Stockton trade, exploded her steam drum, scalding to death eight of the crew, and injuring several others. In April 1863 the *Ida Hancock*, used as a lighter at San Pedro to take passengers off to the ocean steamer, exploded, killing about sixty persons.

Other disasters were recorded which had not even carelessness, it was said, to excuse them. The *Nevada*, an opposition boat on the route to Sacramento, which was commanded and partly owned by Captain Kidd, was wrecked, it was rumored, by the connivance of the California Steam Navigation company. Another boat, the *Washoe*, took the place of the *Nevada*, and was run into while lying at the wharf at Benicia July 1, 1864, by the company's steamer *Yosemite*, her passengers barely escaping with their lives, and some of the crew being killed. In September following, having been repaired and put again upon the route, the *Washoe* exploded its boiler, causing the loss of one hundred and fifty lives. The hull was sold to the Oakland Ferry company, and converted into a ferry-boat. In October following the *Sophie McLane* blew up as she left the wharf at Suisun City, killing several persons and wounding others. On the evening of the 5th of October 1865, the *Yosemite*, in the moment of backing out from the wharf at Rio Vista, exploded her boiler, shattering the whole fore part of the boat above water, and killing thirty-four persons, chiefly

Chinamen. By the explosion of the *Pilot*, in Petaluma creek, in May 1883, twelve lives were lost, and by a similar accident to the ferry-boat at Vallejo, in 1887, about twenty-five persons met instant death.

One of the most appalling accidents connected with steamboating in the inland waters occurred in 1868, on the 4th of July, when, by the giving way of the bridge or apron between the ferry-house and the steamer *El Capitan*, one hundred persons were precipitated into the bay, and half of them drowned before they could be rescued. Thus, over four hundred lives have been sacrificed, which sufficient care and knowledge might have saved. The percentage, statisticians would assure us, is small compared to the great numbers who travel, a consolation not appreciated by the surviving friends of the lost. In 1872 the *Pioneer* was sunk by a gale in San Pablo bay, but was subsequently raised. The *S. M. Whipple* sank in the bay in 1875; and a considerable number of laden barges have met with a similar fate at different times.

The profits of steam transportation for the first two seasons were, as I have indicated, enormous, but the multiplication of boats which competed for the carrying business reduced fares and freights below a satisfactory margin of earnings above expenses, and decided the leading steamboat proprietors to combine their property in an association, which, under the name of the California Steam Navigation company, organized March 1, 1854, with a capital stock of $2,500,000.

The associates were Charles Minturn, representing the steamers *Senator* and *New World*, running to Sacramento, and the *Cornelia* running to Stockton; David Van Pelt, representing the *Antelope*; Richard Chenery and R. M. Jessup, representing the *Wilson G. Hunt*, *Confidence*, and *Thomas Hunt*, all running on the Sacramento route; S. J. Hensley, James Whitney, and William Norris, representing the *Helen Hensley*, and *Kate Kearney* running to Stockton, and the *Hartford*

Chinamen. By the explosion of the *Pilot*, in Petaluma creek, in May 1883, twelve lives were lost, and by a similar accident to the ferry-boat at Vallejo, in 1887, about twenty-five persons met instant death.

One of the most appalling accidents connected with steamboating in the inland waters occurred in 1868, on the 4th of July, when, by the giving way of the bridge or apron between the ferry-house and the steamer *El Capitan*, one hundred persons were precipitated into the bay, and half of them drowned before they could be rescued. Thus, over four hundred lives have been sacrificed, which sufficient care and knowledge might have saved. The percentage, statisticians would assure us, is small compared to the great numbers who travel, a consolation not appreciated by the surviving friends of the lost. In 1872 the *Pioneer* was sunk by a gale in San Pablo bay, but was subsequently raised. The *S. M. Whipple* sank in the bay in 1875; and a considerable number of laden barges have met with a similar fate at different times.

The profits of steam transportation for the first two seasons were, as I have indicated, enormous, but the multiplication of boats which competed for the carrying business reduced fares and freights below a satisfactory margin of earnings above expenses, and decided the leading steamboat proprietors to combine their property in an association, which, under the name of the California Steam Navigation company, organized March 1, 1854, with a capital stock of $2,500,000.

The associates were Charles Minturn, representing the steamers *Senator* and *New World*, running to Sacramento, and the *Cornelia* running to Stockton; David Van Pelt, representing the *Antelope*; Richard Chenery and R. M. Jessup, representing the *Wilson G. Hunt*, *Confidence*, and *Thomas Hunt*, all running on the Sacramento route; S. J. Hensley, James Whitney, and William Norris, representing the *Helen Hensley*, and *Kate Kearney* running to Stockton, and the *Hartford*

a propeller running to Sacramento, the *American Eagle* owned by William Lubbock and his brother Henry Lubbock, and the *Sophia*, owned by Louis McLane, the two last named on the Stockton route; Thomas Lyle, representing the *J. Bragdon*, *Urilda*, and *Camanche*, which were owned by Lyle, George Barclay, Thomas Hope, and John Bosworth, and which ran when the stage of water permitted it to Marysville. The *H. T. Clay* and the *Pike* also belonged to the original company, and subsequently A. A. Redington conveyed to it the *Gazelle*, *Plumas*, *Belle*, *Cleopatra*, and *Gem*. John Bensley was also one of the company.

The aggregate value of the steamers represented was fixed at $1,250,000, and stock issued to the various owners in shares of $1,000 each. The entire capital of $2,500,000 was paid up before August 1859, the company having paid in scrip to the stockholders about $1,250,000 in four and a half years, besides about fifty-eight per cent cash for the same time. The first board of trustees consisted of Richard Chenery, Charles Minturn, Walter B. Minturn, H. N. Squire, R. M. Jessup, Thomas W. Lyle, R. Hope, Samuel J. Hensley, and James Whitney, Jr. The first officers were; Chenery, president; Squires, vice-president; Norris, secretary. Lyle was first agent at Sacramento, soon succeeded by Redington, who remained in this position until the disincorporation of the company. F. F. Low was agent at Marysville, and James Johnson at Stockton. The directors at different times were Charles L. Low, F. F. Low, A. A. Redington, B. M. Hartshorne, William Norris, A. Hayward, Louis McLane, Louis Cunningham, Samuel Soulé, William C. Ralston, N. C. Paddock, G. C. Bodie, William H. Taylor, Lloyd Tevis, S. F. Butterworth, and William H. Moore, who are all well-known business men of the Pacific coast. The tariff adopted by the company after some rivalry with other lines was: Passage to Sacramento, $10.00; to Stockton, $8.00; Marysville, $12.00. Meals and berths were

extra. Freight to Sacramento, $8.00 per ton; to Stockton, $6.00; to Marysville, $15.00; to Red Bluff, $50.00. Free passage was allowed to stockholders owning ten shares, but the privilege being abused by renting it to hotel runners and others, it was withdrawn.

Soon after the organization of the California Steam Navigation company the merchants of Marysville, not satisfied with the rates of passage and freight, formed an association known as the Citizens' Steam Navigation company of Marysville, with a capital of $200,000, of which $60,000 was at once subscribed, the object being to break the older combination. Its officers were: John H. Jewett, president; William Hawley, vice-president; H. Richardson, secretary; trustees, Jewett, Hawley, M. Cheeseman, M. Brumagim, Peter Decker, C. B. Macy, J. M. Ramirez, J. T. O'Farrell, and J. E. Galloway.

The first boat put on by this company was the *Enterprise*, of 120 tons, which began running July 26, 1854, the charge for freight at this time by the old company being twenty-five dollars per ton, which the competition brought down to one dollar, while its adherents supported a rate of twelve dollars by the Marysville or Citizens' line. The Sacramento company put fares down to twenty-five cents, and the Citizens' company to a dollar, both running their boats to Marysville. The temptation of the merely nominal prices caused many merchants not in the new combination to desert it for the more powerful opponent. Before the year was out the Citizens' company built and put on their line the *Queen City*, already mentioned, a high-pressure boat which was capable of a high rate of speed. In January 1855 the city of Marysville voted, almost unanimously, to subscribe $100,000 to the stock of the Citizens' company, and the explosion of the *Pearl* which belonged to the old line, the same month, gave a temporary advantage to

extra. Freight to Sacramento, $8.00 per ton; to Stockton, $6.00; to Marysville, $15.00; to Red Bluff, $50.00. Free passage was allowed to stockholders owning ten shares, but the privilege being abused by renting it to hotel runners and others, it was withdrawn.

Soon after the organization of the California Steam Navigation company the merchants of Marysville, not satisfied with the rates of passage and freight, formed an association known as the Citizens' Steam Navigation company of Marysville, with a capital of $200,000, of which $60,000 was at once subscribed, the object being to break the older combination. Its officers were: John H. Jewett, president; William Hawley, vice-president; H. Richardson, secretary; trustees, Jewett, Hawley, M. Cheeseman, M. Brumagim, Peter Decker, C. B. Macy, J. M. Ramirez, J. T. O'Farrell, and J. E. Galloway.

The first boat put on by this company was the *Enterprise*, of 120 tons, which began running July 26, 1854, the charge for freight at this time by the old company being twenty-five dollars per ton, which the competition brought down to one dollar, while its adherents supported a rate of twelve dollars by the Marysville or Citizens' line. The Sacramento company put fares down to twenty-five cents, and the Citizens' company to a dollar, both running their boats to Marysville. The temptation of the merely nominal prices caused many merchants not in the new combination to desert it for the more powerful opponent. Before the year was out the Citizens' company built and put on their line the *Queen City*, already mentioned, a high-pressure boat which was capable of a high rate of speed. In January 1855 the city of Marysville voted, almost unanimously, to subscribe $100,000 to the stock of the Citizens' company, and the explosion of the *Pearl* which belonged to the old line, the same month, gave a temporary advantage to

the new company. It was soon found, however, that both companies suffered by the too sharp opposition, and a compromise was finally effected on the schedule quoted above.

In 1855 the California Steam Navigation company subsidized the *Queen City*, and also placed on its line to Marysville the *Governor Dana*, a new boat of that name, J. S. Johnson master; the *Cleopatra*, W. H. Taylor master; and the *Sam Soulé*, Henry Gilman master. In the summer of 1858 the *James Blair*, Captain W. S. Somers, and the *Governor Dana*, Captain M. Littleton, plied between Sacramento and Marysville; in the winter there were the *Cleopatra* and *Young America*, the latter a large stern-wheel boat built by the Citizens' company, with the same commanders, which was sunk near Marysville in 1865. In 1861 the *Defiance*, J. C. Gibson master, belonging to the Citizens' company, was on the Marysville route, connecting at Sacramento with the *J. T. Wright* for San Francisco. A small steamer, the *Swallow*, was also running in this line at the same time, and in the years between 1861 and 1870 the *Banner*, *Flora*, and *Yuba City Belle* were put on this route.

In 1871 the rivalry between the two companies was ended by a transaction to be referred to presently. A new line of steamers between Marysville and Sacramento was started by D. E. Knight, W. T. Ellis, and J. R. Rideout, who purchased the California-built steamer *C. M. Small*, of 120 tons register, and placed it on the route to San Francisco, and in 1875 built the *D. E. Knight*, of 160 tons register, at Marysville. These were both stern-wheel boats, intended for low water, and for many years used as freight boats. This company owned, besides, four barges which were towed by their steamers, carrying from 100 to 350 tons each. The gradual filling up of the channel of Feather river with mining debris finally rendered it impossible for boats to reach Marysville landing, goods

being deposited either at Yuba City or on the opposite bank of Feather river, where they were transferred to wagons. But in 1887–8, some time after the passage of an act by the legislature preventing miners from washing debris into the streams in certain parts of the state, the navigability of the Feather river had shown evidence of returning.

Coming back to the history of the California Steam Navigation company—it pursued a career of monopoly successfully for seventeen years. The progressive steps by which it accomplished its conquest of the water transportation is succinctly shown in the ensuing record. In 1855 the *Eclipse*, a large high-pressure steamer, was sent out from Cincinnati, and owned by Captain Lyle and others, was subsidized, laid up, and finally broken up. The *Thomas Hunt* was sent to China and there sold. The low-pressure steamer *Surprise*, sent out from New York in 1856, was purchased for $105,000 and with the *Wilson G. Hunt* sent north to make money during the Fraser river excitement. The latter remained on Puget Sound, and the former was sent to China and sold. The large low-pressure steamer *Chrysopolis* was built by the company here in 1860, her engines being shipped from New York. After running on the river for a time she was remodelled and became the ferry-boat *Oakland*, still in the service of the ferry company, between Oakland mole and San Francisco. In January 1863 the large high-pressure boat *Nevada*, built by Kidd and others to run in opposition to the California Navigation company, was wrecked at Cache creek. The same year the company built the large low-pressure steamer *Yosemite* for the Sacramento trade; but in 1864, while leaving the landing at Benicia, she collapsed her flues, causing great loss of life. This boat was transferred after being refitted to Fraser river, where she remained. In 1864 the *Washoe*, built by Captain Kidd, after running a short time collapsed her boilers, causing a great loss of life

and being totally wrecked. About 1865 the company purchased from Captain Wright the sea-going steamers *Brother Jonathan* and *Pacific*, both of which have since been lost, the former the same year and the latter in 1875; and in 1866 purchased the propellers *Ajax* and *California*, which had been used as transports during the war, and were sent out here to be sold by J. B. Dickinson. The *Ajax* ran for a short time to the Sandwich islands, and afterward in the Oregon trade, as did also the *California*. The same year the company built the large low-pressure steamer *Capital*. In the mean time the *Orizaba* and *Active* had been added to the company's fleet of sea-steamers, and in 1867 were sold, along with the *Pacific, Senator, Ajax,* and *California*, to the California and Mexican Steamship company, in which Ben Holladay owned the controlling interest, the California Steam Navigation company receiving $650,000 worth of the steamship company's stock in consideration of the sale. Two years afterward Holladay purchased the company's interest for $450,000; and in 1871 the company sold its entire property to the California Pacific Railroad company for $620,000.

During the existence of the California Steam Navigation company there was paid in dividends, in cash and stock, about 324 per cent or 20 per cent per annum; and in the final closing up of the business 45 per cent of the capital stock was paid to the stockholders in cash, being about the amount originally subscribed.

Some personal memoranda may not be out of place here. Richard Chenery resigned the presidency in 1855, when S. J. Hensley was elected. Benjamin Hartshorne was elected president in 1865, and Mr Norris resigned the secretaryship, and S. O. Putnam was elected in his place. In 1866 Hensley died. Of the captains who have passed away are John and David Van Pelt, Ned Pool, Gannett, Seymour, George Barclay, Ned Hope, Thomas Lyle, Thomas Seely,

Chadwick, Weeks, Moseby, and Clark. Of the rest there were living Thorne in 1888 in San Francisco, Benjamin Hartshorne in New York, Spears in Boston, William H. Taylor of the Risdon Iron Works, San Francisco, and Averill in Chicago.

Of other men concerned in the company's affairs, Louis McLane resided in Baltimore; John Bensley engaged in a variety of enterprises such as water and gas companies and iron works in San Francisco, and an irrigating canal scheme in San Joaquin county, together with other projects for developing the country's resources in a practical manner. William Norris, who had been captain of a steamboat on the Mississippi, after resigning the office of secretary in the California company, became agent of Holladay's line, and finally vice-president of the North Pacific Transportation company, in which office he remained during the existence of this corporation, after which time he became secretary of the Spring Valley Water company. Others connected with the navigation companies as shareholders and directors were R. J. Vandewater, P. B. Cornwall, John Bidwell, Thomas O. Larkin, James Blair; and as captains, S. P. Putnam, Robert Haley, George S. Wright, William Moore, Frank Conner, Martin Bulger, James Freeborn, Charles Thorne, Baird, Hurlbut, Lewis, Foster, Burns, Leslie, and Gorman.

That efforts were made to lessen the influence of the California Steam Navigation company upon business affairs, and how futile were those efforts, is shown by the action of the legislature in 1856, which appointed a committee to investigate the subject of corporations, and of navigation companies in particular. It was declared that the entire carrying trade of the Sacramento and its tributaries was performed by two companies, and that they charged nearly six cents per mile for first-class passage, and five cents per ton per mile for freight. Some reduction had

been made from former rates, but, contrasted with the prices charged on river boats beyond the mountains, they were still extortionate. Cabin passengers were carried 1,600 miles on the Ohio and Mississippi, and boarded and lodged for six or eight days, for twelve dollars, or less than a cent a mile. The committee therefore proposed to the legislature to reduce the tariff to three and a half cents per mile for first cabin passage, two cents for deck passage, and three cents per ton per mile for freight. It was shown that twenty-one counties depended upon these two lines for transportation, and that at the lowest estimate Sacramento paid $172,800 more on freight annually than it would pay if the rate were reduced to the committee's schedule. Multiplying this difference by the number of counties supplied would show some approximation to what they paid over and above what they considered a fair profit to steamboat companies on freight alone, while passenger fares amounted to quite as much. Dividing the whole amount thus paid by the number of persons in the counties served, it constituted a tax upon every man, woman, and child of four dollars and nine cents per annum, or divided among the actual voters of these counties, it amounted to twelve dollars and twenty-seven cents per man. "Thus," says the report, "it will be seen that twenty-one counties pay annually a tax to two corporations which amounts to a sum nearly one hundred thousand dollars greater than the yearly revenue of the state."

I quote this to show that at this early period the people had commenced their attempts against transportation companies which continued to a later period. The report referred to the fierce opposition which had attempted to break the combination, but without avail, and even named the following steamers which were laid up, being hired by the California Navigation company to lie still: *Queen City*, *Enterprise*, *Defender*, *Anna*, *Abernethy*, and *Eclipse*.

I can only state further that the suggestions of the

committee were not adopted, for in this legislature the corporation seemed to have more friends than the people? In 1860 the company, finding it an onerous burden to be compelled to purchase or subsidize all the boats which might be placed upon the rivers, set free all the tied-up steamers, and for a time freight and fares were kept at low rates by an active competition. There were at that time forty-eight river-boats completed, and four in process of construction. Of these, twenty-four belonged to the California Steam Navigation company, two to the Citizens' company, two to the Merchants' Transportation company, two to the Sauzalito Steam-tug and Water company, six to the Contra Costa Ferry company, and twelve were miscellaneous. But in 1868, when the California Pacific Railroad company desired to purchase some steamers to complete its line from Vallejo to San Francisco, it was compelled to go out of the state for them. The company, which would permit no rival in the state, did much to develop trade and improve navigation, as well as to make travel agreeable by elegantly appointed and commodious steamers, and to give employment to a large number of persons. That it might have done all this with smaller dividends its critics were agreed. For seventeen years it continued to tax the country for its three per cent a month, and surrendered at last only to a superior power.

It was a change which revolutionized some kinds of business, although the river trade being a secondary object with the railroads, the waters were free to such companies or individuals as desired to venture their means. Passenger traffic and fast freight followed the railroads, but grain and produce from the two great valleys were carried to San Francisco on the light-draught steamers or the barges which they towed, returning laden with merchandise. A new California Steam Navigation company, with headquarters at Stockton, afterward sought to gain the

control of river transportation, but its history has never resembled very closely that of the original.

California has few rivers navigable for any great distance except the Sacramento and San Joaquin, and few inland bodies of water besides. An attempt was made to relieve the wants of the miners of San Joaquin county, after the great flood of 1861–2, when the state of the country roads was such that no communication could be had with them by land. Flour was at a dollar a pound in the mines, and merchants were anxious to take a cargo up while prices were high. In this emergency D. J. Locke, of Lockeford, on the Mokelumne river, went to San Francisco and chartered the *Fanny Ann*, commanded by John Haggerty, a steamer 110 feet in length, which he loaded with supplies, and despatched February 12th, with orders to take two weeks if necessary in reaching his town. The *Fanny Ann* met with no serious obstacles in ascending the Mokelumne as far as Woodbridge, a town owned by a Mr Woods, who, wishing to fix the head of navigation at his place, made such representations to Haggerty that he was induced to unload at Woodbridge, and when six days still remained of his allotted time turned his back on these perilous waters and returned to San Francisco. But Locke was not the man to give in to such impediments, and going a second time to San Francisco, he purchased a steamer on condition that it should go to Lockeford. Loaded with fifty tons of freight and sixty passengers, the *Pert*, Captain Allen, made the trip successfully, and was welcomed with loud plaudits at her landing. A company was soon formed, consisting of D. J. Locke, George D. Locke, Edwin Foster, and James Tallmadge, called the Mokelumne Steam Navigation company, which purchased the *Pert*, the *O. K.*, and the *Mary Ellen*, which continued to ply on this river, although not always able to ascend to Lockeford. Out of the success of this organization grew the Mokelumne River Improvement company in 1865,

whose members were the steamboat owners and others, and whose capital was eight hundred shares, representing $40,000; the benefits to be the right to collect ten cents per ton on all freight which passed on the river; and to entitle them to collect this tax for twenty years they were bound to clear the river for a certain distance, and within a given time. This they did, and collected their tolls, having one suit at law, but maintaining their right, which expired in 1885. But long before the twenty years had passed, circumstances had so altered that there was nothing for the Mokelumne Steam Navigation company to do. The mining population whose wants first stimulated its founders to the effort has passed away, a railroad now carries freight as well as passengers, and there is nothing left worth contending for, while the *Pert*, the pioneer in the company's service, lies dismantled, sunken, and filled with sand at Staples' ferry, at the crossing of the old trail from Stockton to the southern mines.

Lake Tahoe is the only inland body of water on which steam navigation is used, and that only since 1873. On the bay of San Francisco ply unnumbered steam craft, running to the numerous minor bays, inlets, and creeks which surround this magnificent harbor. They help to make up the great sum of transportation, but individually they are without any interest.

The Colorado river, owing to its wildness, and its position on the southeastern border of the state, and being without settlements on either bank until more recent years, has been slow in coming into repute as a navigable stream. It is, nevertheless, a most interesting river, with a not insignificant history, and it will continue to influence commerce throughout this section more and more as the centuries roll by. Born in mid-continent, and interlocked with the Platte, the Arkansas, and the Rio Bravo del Norte by its eastern

branches, which drain the northwest portion of New Mexico under the name of Grand river, its tributaries on the north which form Green river intertwine with those of the Yellowstone and other branches of the Missouri, and with the Snake river branch of the Columbia. After receiving the Grand, it flows through a desolate land, and enters a cañon hundreds of feet in depth and more than a hundred miles in length, with abrupt walls of rock for long distances, and where the force of the current dashing against them grinds into smallest fragments any trunk of tree which the floods of spring may have washed down from the crest of the continent into its upper waters. Issuing from this chasm, it flows more than four hundred miles through an arid country, with but one tributary, the Gila, something over a hundred miles from the gulf of California. After receiving the Gila, its course is through a valley which is five hundred feet lower than the level of the sea, and which evidently was once a portion of the gulf into which the river debouches, but is now a hot and waterless desert, except in seasons of heavy rains, when the river overflows its self-made dykes, and forms here and there a bayou, the largest of which has been mistaken for a river, although it flows from instead of into the Colorado. Its shores are apparently simple mounds of sand or mud, with gullies between them, making the country adjacent to the river entirely impracticable for roads, and the river itself impossible to be bridged, except at a few places at long distances apart. The mountains in the lower Colorado region rise abruptly from the plains, resembling large dykes, terminating at top in sharp ridges, which a man could bestride as he would a horse's back. The current of the Colorado is swift, and the water in the dry season shallow; in the rainy season it is a rushing volume of red mud, resembling, except for its greater liquefaction, the country through which it flows bank-full, the strange, uncompleted appearance of the treeless

landscape suggesting the world just after the Noachian deluge. Its entrance from the gulf is obstructed by an island parting its waters, which here also meet a tidal wave nine feet in height which causes the current to set in on one side with great velocity, and to ebb with equal force on the other; the narrow channels and the contrary currents making it most dangerous ground for sailing-vessels. Such are some of the natural features of this wonderful stream, one of the four great rivers of the North American continent and the least attractive of them all to the navigator.

Fernando Alarcon, who discovered the river in 1540, ascended it with twenty men in two boats 255 miles, according to his account, but possibly farther, as he alleges that he came to where the mountains through which the river ran made it impossible to draw the boats, which could only be at the great cañon. The navigator describes the narrow escape from destruction which threatened his fleet of three vessels at the mouth of the river, and other explorers later vainly attempted to stem the powerful current at the entrance.

About 1828 or 1829 Lieutenant Hardy of the British navy, connected with a pearl-fishing company in the gulf, surveyed the entrance and ascended the river for ten or more miles, having a perilous experience. The tide running at the rate of nine miles an hour threw his vessel on shore, where she lay for eight days, being left on one occasion 150 feet from the water, the flood and ebb tides having the same velocity and impinging upon each other, "boiling up full eighteen inches above the surface, and roaring like the rapids of Canada."

Following the conquest of California and the close of the Mexican war, the different military expeditions and the immigrations which followed the gold discoveries familiarized the American mind with the crossing of the Colorado, and no more. This was

established at the junction of the Gila, where the road from the Rio Grande near El Paso touched the Colorado, and where the nature of the ground was favorable. It was here that Fort Yuma was established by Major Heintzelman in 1850—a mere camp then—for the protection of the immigration, and the problem of how to supply this post was that which suggested the effort to navigate this river.

Camp Yuma was situated upon the bottom land near the crossing, but Fort Yuma, constructed a little later, was located on a rocky elevation at the junction of the two rivers, and about seventy feet in height, through which the united rivers have forced their way, although it would have seemed more natural had they flowed around the obstruction, which is of no great extent.

Camp Yuma, which was abandoned during 1851, had at first to be supplied by land from San Diego at an enormous expense; but in June 1852 the letting for the transportation was given to contractors at Benicia, who proposed to take the route by the gulf and river at $120 per ton for the first cargo, and $50 for all that was required during the remainder of the year. The schooner *Capacity* was loaded with stores, and reached the mouth of the Colorado in safety. From this point a steam-tug was employed to tow lighters up to the camp, which was, however, unable to reach that point on account of the low stage of water; and the stores had to be landed, and conveyed in wagons from the lighters to the fort at almost as great an expense as if they had come all the way from San Diego on wheels.

In the mean time Heintzelman and Sackett, of the Colorado Ferry company, had made a survey from the Gila to the gulf, and pronounced the river navigable, and the United States schooner *Invincible* had ascended it for a distance of thirty miles; and it appeared from all the observations taken that the river was subject to great changes of volume, and

that at one season it might have ample water, while at another it had not more than three feet in the channel at no great distance from the gulf.

By degrees this incertitude disappeared before the determination of enterprising men, and in the spring of 1854 George A. Johnson and company placed a small steamer, the *General Jessup*, on the river between the gulf and the fort, carrying freight or towing government schooners to and from such points as they could reach and the waters of the gulf. The *General Jessup*, commanded by Johnson, had an engine of twenty horse-power, and drew only sixteen inches of water, although 105 feet long and with side wheels.

Having settled the question of the navigability of the Colorado to Fort Yuma, efforts were next made to determine what use could be made of the stream as far up as the Rio Virgen, which was crossed by the old Spanish trail from New Mexico via Salt Lake to Los Angeles. According to the testimony of a trapper, Antoine Leroux of New Mexico—who in 1837 descended that portion of the river in skin canoes, until he reached a place where he found timber, when he made wooden ones—there was nothing to prevent a small steamer from navigating it, the most shallow part having from three and a half to four feet of water in January, which is the season of low water, when the mountain streams that feed the river are frozen.

Captain Johnson had meantime interested himself in getting the legislature of California to instruct the delegation in Washington to attempt to procure congressional action in the matter of official exploration of the Colorado, or an appropriation to cover the expense of a semi-official survey by Californians. Johnson even went to Washington to urge the importance of the subject upon the attention of the secretary of war. As a result of these importunities an expedition was set on foot in 1857 intended to settle the question of the navigability of the Colorado,

under the command of Lieutenant J. C. Ives of the United States Topographical engineers. An iron stern-wheel steamer forty-five feet long, drawing thirty inches of water and capable of running ten miles an hour, was built in Philadelphia for this expedition. It was brought across the Isthmus at a cost of $7,000, and on arriving in San Francisco was reshipped on board the government transport *Monterey* for the Colorado river, which was ascended a distance of seventy-five miles to the head of navigation for sailing-vessels. Here the material of the steamer was landed and put together in sixteen days, when it was named the *Explorer*, and started December 31st for Yuma, carrying the freight of the expedition. The officers of the exploring party after Ives were J. S. Newberry, geologist; F. W. Eglotfstein, topographer; C. Bielawski, hydrographer; Mollhausen, naturalist; P H. Taylor assistant topographical engineer; and C. K. Booker, assistant surveyor. A steamboat engineer and a number of men composed the remainder of the expedition, which was until the 11th of March 1858 in reaching the Rio Virgen, "beyond which it was impracticable to proceed in boats." A portion of the party were sent back to Fort Yuma, striking a rock in the descent, while the explorer proceeded by land with a pack-train to examine the country on the upper tributaries of the river.

The report which he made in November 1858 was on the whole favorable, and helped to an understanding of the peculiarities of the river. He paid a just tribute of praise to "the enterprising company which for three or four years had been transporting government stores in steamboats from the mouth of the Colorado to Fort Yuma, whose persevering energy had so far succeeded in overcoming the natural difficulties of the navigation as to enable them to perform their trips with entire regularity and certainty."

On the 31st of December, the day on which Ives commenced his steamboat voyage seventy-five miles

below Fort Yuma, Captain Johnson, president of the company referred to, set out from that place in the *General Jessup*, with thirty-five men, fifteen of whom were soldiers under Lieutenant White, detailed to escort Johnson's expedition. The party ascended the river without accident as far as Beale's crossing of the Colorado, about where Fort Mojave was once situated, and where is the present crossing of the Atlantic and Pacific railroad. From here the expedition after examining a cañon thirty miles in length returned down the river. They encountered at the end of the first day Lieutenant Beale with an escort of fifty dragoons whom they ferried across, and 160 miles above Yuma met Ives' expedition. When within fifty miles of Yuma the steamer struck a rock and sank in three feet of water. Johnson proceeded in a skiff to the fort and, taking a working party back with him with the necessary appliances, had the *General Jessup* afloat again in two days.

One result of these expeditions was the ascertaining that there was a considerable amount of excellent land in numerous valleys, though of no great extent, situated laterally to the river as well as in the bottoms of the Colorado itself. The Mormons of Utah had extended their settlements down to the Rio Virgen, farms had been opened in the neighborhood of forts Yuma and Mojave, and increased transportation was demanded, not only immediately upon the river, but to accommodate the interior of Nevada, Utah, and Arizona.

In 1864 Samuel Adams of the latter territory visited San Francisco to endeavor to direct the attention of commercial men to the necessity of further explorations of the upper Colorado. The only person who gave much heed to his suggestions was Thomas E. Trueworthy, who purchased a steamer with his private means, and entered upon the business of transportation on the river, running his steamer, the *Esmeralda*, and towing freight barges as far as Collville,

a short distance below the Rio Vírgen, and 200 miles above Fort Mojave, or 600 miles from the gulf, while from Collville to Salt Lake City was only 350 miles. Surely this was an achievement deserving of honor; and so thought the legislature of Arizona, which in 1866 passed a resolution of thanks to Captain Trueworthy, "for his untiring energy and indomitable enterprise in opening up the navigation of the Colorado river, the great natural thoroughfare of Arizona and Utah territories." The California legislature also two years afterward complimented Trueworthy, and instructed its senators and representatives to endeavor to obtain aid from congress in perfecting the navigation of the river.

Nor was this an idle demand. The surveyor-general of California and the surveyor of San Diego county had in their reports to the legislature more than once assured that body of the mineral wealth to be found in the Colorado and Gila region. Private exploration and capital had in a measure developed it. In 1862 there was quite a fleet of schooners and light-draught steamboats and barges engaged in carrying freight to and on the Colorado river. In 1866–7 the Salt Lake trade, said the Arizona *Miner*, employed between six and eight millions of dollars in capital, and required for its handling nearly 6,000 men, with 5,000 wagons, and mules, horses, and oxen innumerable, while the freighting business carried on with San Francisco was worth a million and a half yearly, besides a considerable trade by way of San Bernardino; and still the transportation was inadequate, goods and ores lying for months on the banks of the river awaiting shipment. The magnitude of the continually increasing commerce with the great basin, of which the Colorado was the natural outlet, called for the aid of government to afford relief to its plethora.

The first corporate company to be formed for transportation on the Colorado was the Colorado Navigation company. It owned three light-draught stern

wheel steamers, namely, the *Colorado*, *Mojave*, and *Cocopah*. The second was the Pacific and Colorado Steam Navigation company, organized in June 1865, which grew out of the enterprise of Captain Trueworthy, and which made Collville the head of navigation. The capital of the company was $200,000, divided into 4,000 shares at $50 each. The trustees of the company were George S. Marvin, James Linforth, C. S. Hobbs, George Plummer, J. N. Risden, J. W. Store, and K. C. Eldredge. It owned the steamers *Esmeralda* and *Nina Tilden*, and the schooner *Victoria*. Both the companies transported all their heavy freight in barges towed by their steamers. The steamers received their freight at Fort Isabel, their stopping-places being Fort Yuma, Castle Dome, Eureka, La Paz, Williams' Fork, Fort Mojave, Hardyville, El Dorado Cañon, and Collville, all small villages or trading-posts, where the miners of the surrounding region came for supplies. In 1867 the Pacific and Colorado Steam Navigation company reorganized as the Arizona Navigation company, the following San Francisco capitalists being interested in it, namely, J. W. Stow, R. G. Sneath, Albert Dibble, and Hobbs and Gilmore. Merchants and manufacturers of this city subscribed toward increasing the facilities of a regular trade with Utah and Arizona by further surveys of the river. In the autumn of this year the Mormon church ordered a community of thirty families to settle on the Muddy branch of the Rio Vírgen, and gave other evidence of interest in the promised increase of transportation. The rapid advancement of the Central Pacific railway about this time, pointing out to the merchants of Salt Lake and San Francisco the future route of transportation between these two cities, operated as a check upon the enthusiasm necessary to carry forward undertakings of an uncertain result.

It happened also that in September 1867 the question of the possible navigation of the great cañon above

Collville was settled by an accident. A party of three prospectors from Colorado City, in the territory of Colorado, were exploring for gold on the San Juan river in the southwestern part, when they were attacked with such suddenness by a party of Indians that their leader, Captain Baker, and all their mules were killed at the first fire. The other two men seized as quickly as possible their lariats and a few pounds of flour, and ran toward the river, where they hastily constructed a raft, to which they as hastily and unthinkingly committed themselves for a voyage down the San Juan, which brought them into the Colorado river. On the third day one of the men, George Strobe of St Louis, was washed off and drowned, and the flour being lost at the same time, the sole survivor was left without food. He immediately lashed himself to the raft for greater security, and it being impossible to return, allowed himself to be borne along with the current, which carried him entirely through the dreaded cañon, from which it was impossible after entering to escape. In passing over rapids he was several times nearly drowned, and for seven days he had no sustenance except that derived from chewing the leather scabbards of his hunting-knives, nor any rest except when he tied his craft to a projecting rock in some bit of slack water for a little sleep. When he arrived at the mouth of the Rio Vírgen he was pulled ashore by some Indians, who robbed him of one of his pistols and a hatchet, and sold him some dog-meat for his other pistol. He was unable to stand erect; his hair had changed to a yellow-white color, from being constantly wet; his lower limbs were "one solid scab from his feet to his hips," and although still a young man, he appeared to be seventy years old. Such was the wretched plight of James White, of Panosha, Iowa, the first white man to navigate one of the upper branches and the grand cañon of the Colorado. From his account of the rapids in the cañon, all thought of its ever being made passable for steamboats was aban-

doned, if any had ever been seriously entertained. A few years later the carrying trade of the gulf of California and the Colorado river fell into the hands of the Southern Pacific railroad company, under the name of the Colorado Steam Navigation company. As river navigation on our western seaboard must always remain limited, let us hope that good use will be made of this stream.

I will follow steamboating with freighting, since that is its natural sequence. I have mentioned that goods as well as passengers arriving at San Francisco by sea before the era of steamboats were conveyed to up-river points as near to the mines as it was possible or convenient to go in whale-boats and ship's launches, or on board barges impelled by oars and sails, Sacramento, Stockton, and Marysville being the chief distributing entrepôts. A passage to Sacramento in the ante-steamboat era cost from $50 to $200, notwithstanding the passenger assisted if required in propelling the vessel against the stream. Fares to places about San Francisco bay were as high as $30, and freight was $50 per ton to Benicia, while from eighteen to thirty-six hours were consumed in a single trip, the risk to life being almost the same as when the padres used to be ferried across to San Rafael on rush balsas.

While people poured into California from the sea, armies of pilgrims to the Mecca of Mammon were toiling painfully in straggling columns from the Missouri to the Sacramento with every summer. They suffered as all great migrations have suffered, from the date of the Jewish exodus from Egypt or the flight of a whole Tartar tribe from a more recent despotism. Weakened by famine and decimated by disease, the graves of those who perished by the way and the bleaching bones of overworked oxen served as milestones for those who next year trod in their wake. Still they literally planted civilization as they went,

for they left a narrow belt of flowering plants and familiar dooryard weeds from the Missouri to the Sierra. Wherever the wheels of their heavily laden wagons broke the tough prairie sod there sprang up the homely witnesses of their passage. Whence came the seed? Are there certain plants that, like certain insects, the house-fly and the bee, follow as a consequence men's earth-conquest?

The native Californian must have been as indignant as he was surprised at this irruption of another nation into the midst of his hitherto slumberous land, but his indignation availed him nothing. They were here, and a more energetic, restless, migratory mass of human beings never yet peopled any country. Young and intensely alive but not perennial, alas, as testified by the nameless graves on many a hillside, they rushed hither and thither after every ignus fatuus floating on the rumor-laden air; and many fell stricken by illness which at home would have been easily subdued, but which here was fatal from lack of treatment and care. Each had his little story, often highly dramatic. He had braved the perils of the sea or encountered the dangers of the wilderness to court the fickle goddess, while mother, wife or sweetheart waited at home for the fruition of their hopes and his. The widowhood that these too often rudely broken dreams entailed upon the nation was but little less than that inflicted by the civil war ten years later. It was the first general disruption of home circles since our government was formed, the effects of which are destined to reach down to distant generations, counteracting much of the good which has resulted from these two great events in our history.

As I have said, land transportation in California previous to and during a part of 1849 was conducted almost altogether by means of pack-animals and riding-horses. In 1850 there was an improvement consequent upon the large number of draught animals and freight or farm wagons introduced the year pre-

vious across the plains. In the mountains, for lack of roads, mule-trains continued to be used until that want was supplied a few years later. But whether a mule-train or a wagon-train performed the service, it was excessively costly to the owner of the goods who had just paid the extraordinary charges which were imposed upon him by the navigation agents. One merchant relates that he paid in ten consecutive days $65,000 in gold-dust for the transportation of goods from Sacramento to Coloma, his freight being principally flour and pork carried in wagons. What wonder that since the merchant was anxious to make a profit, flour was $1 and $1.25 per pound; pork, $1.50; boots two ounces of gold-dust, and blankets the same. The charge for packing goods from Coloma to the different bars on the river was from 50 cents to $1 a a pound. Certainly no country ever paid out so much for transportation as California.

It would be a difficult matter, an impossibility indeed, to give any statistics or well-arranged facts concerning pack-trains and wagon-trains. A distinction, however, should be made in one respect. Packing might be, and was, taken up as a means of acquiring money by any one, from a Mexican muleteer who was perfectly au fait in this business, to the graduate of an eastern college, who turned from unprofitable and uncongenial labor in the mines to the profitable if disagreeable business of transporting goods from some river port to the diggings where they were to be exchanged for gold-dust. Men occupying positions of honor and trust to-day, or possessing hundreds of thousands, if not millions, can relate personal experience gained when they packed from Stockton to the southern mines, from Sacramento to Coloma, from Yuba City or from Marysville to the northern mines, and so on.

The Mexican trains were altogether the most picturesque in appearance, the tinkling bell of the lead mule, the jingling spurs of the Mexican guard, dressed

in the never-failing sombrero, serape, and gay-colored sash, with a little armory of weapons in his belt to warn off Indians and highwaymen, and the general air of being to the manner born which no American was ever able to assume. The college-bred young man might wear a broad-brimmed hat, but it gave him a disreputable air, like that of the cowboy of a later period; he might go well armed, but it was at the risk of looking like the outlaw he would avoid; and his clothing instead of imparting any grace to his appearance had a look of having been picked up helter-skelter from the débris of a fire or the flotsam of a marine accident. But it was no matter—there was money in it if he escaped accident, which as a rule he did, although the roads were bad enough in the rainy season, and the crossing of streams dangerous.

Take, for example, the firms in Marysville that were engaged in packing in 1853: Boardwell & Co., Cummings & Myers, Clark, Wagner & Stickney, Carr & Co., Frank Drake, Benjamin Drake, Dean & Co., J. W. Easterling, Ferdinand & Gustavus, Fletcher, Gordon & Co., Hurd & Hubert, James Hutchinson, Jackson, Johnson & Hicks, Johnson, Keiler & Brock, Long & Co., Lloyd & Co., Love & Co., Mayot, Fox & Co., M. Myers, L. R. & E. J. Magee, Reuben Russell, Root, E. Slocum, Tipton & Lloyd, Tainter & Hewitt, William Tell, Hiram Utt, W. C. Vineyard, and twenty Mexican owners of mule-trains. The whole number of mules owned in Marysville, and which were packed there for the surrounding mines, was over 4,000, and the wagons employed in transporting merchandise over 400, with their teams of from two to six horses, or perhaps oxen. Think of what the railroads have relieved us in the feeding and caring for such vast numbers of animals.

The wagoner was a different sort of person from the packer. He was neither Mexican nor college man out of place, but a plodding westerner, who had crossed the continent, and who understood freight-

ing pretty well from experience. He was dressed in rough but comfortable costume, was sunburned and covered with dust, walking along beside his team, or mounted on top of a high load, driving six-in-hand with a loose rein. At night he encamped beside a spring or a stream, and having attended to the wants of his team, brewed himself a pot of strong coffee, toasted a flitch or two of bacon by the camp-fire, which he ate contentedly with his bread, and having refreshed himself thus rolled himself in his blankets and turned his face up to the stars, sleeping soundly with his pistols within reach of his hand. He was seldom molested, for he did not carry much gold. He led a not altogether enviable life, breathing the incandescent dust, indulging in classic oaths, yet saving a good income out of his transportation contracts, which he afterwards invested in cattle, or applied to a toll-road, a ferry franchise, or a farm, as became a useful citizen.

This form of transportation continued, and was modified by circumstances. The wagoners of 1850–3 remained no longer in the business than was required to start them in some other, as just suggested. Later, when communities grew more fixed, there arose a class of freight contractors who carried merchandise from the river ports to the interior towns, making it a regular business, and being provided with great wagons, carrying from 8,000 to 12,000 pounds, and hauled by from four to eight spans of large mules. Not infrequently a train of two of these immense wagons was hauled by a single one of these multiple teams, and the streets of the mountain towns were daily crowded with both. Dragging their slow and stately length along, they passed on to supply the wants of some more distant community, the stout mules, each with a string of jingling bells arched over his collar, and wagging his gratified ears, as much as to say he was honored to belong to his owner's responsible firm. To admit of this system the roads were necessarily kept

in excellent condition, and were mostly toll-roads. On the mountain grades turn-outs were provided, where teams going in one direction could draw aside to permit the passage of those going in the opposite direction, or where they could await the passage of the United States mail, whose punctual appearance could be calculated to a few minutes, and whose gait, as the six-in-hand swung rapidly around the sharp curves, would have rendered a collision decidedly sensational. Here the chimes of little bells were useful, and these with the jangling of trace-chains echoing around the cliffs gave a note of warning to all within hearing to look out for a safe place to pass, and made a civilized sound in the shady dampness of the deep defiles.

The capital invested in wagon transportation in California before the advent of railroads was large. The wagons were California-made, and cost from $800 to $1,500. Many of them measured six feet in depth on the inside, twelve feet in length on the bottom, and seventeen feet on the top from front to rear. A good harness for the team would cost from $300 to $600. The value of a pair of mules would range from $500 to $1,000, and a six-span team, the ordinary amount of power required on the mountain roads, would therefore cost from $3,000 to $6,000, making a single outfit cost at the most moderate estimate between $4,000 and $5,000, and often twice that sum. At the tail of the great wheeled barge was frequently an ordinary farm wagon filled with provender for the team, and the matter of food for the animals employed was no slight item of expense. It is not surprising, then, that the prosperity of a town, county, or mining district was reckoned a good deal by the number of freight contractors doing business within it.

When the silver discoveries in Washoe created a necessity for organizing a new state, the whole transportation above Sacramento was performed by wagon. The new state was peopled, fed, clothed, and furnished

with mining machinery by such means as I have described, moving in endless procession, and with infinite toil, until such time as railroads came, not to the relief of men and beasts, but to push them farther back into still newer regions, where the same service was rendered, if at reduced compensation; for the heavy freight wagon still groans along the weary wastes of Nevada, and is familiarly known in the mid-continent territories.

Some of these merchant caravans have made journeys well worthy of being recorded in history. In the earlier days of Los Angeles county trade Phineas Banning despatched a train of twelve fifteen-mule teams, carrying goods from Wilmington on the coast to traders as far east as Salt Lake; but, owing to the hostilities existing about that time between the Mormons and the gentiles, this commerce was abandoned. Again, in 1866, a large merchant train travelled the road opened by the Mormons of San Bernardino to and through Utah to Montana, a distance from the coast of more than 1,000 miles.

Lieutenant Beale, in his expedition across the country in 1857–8, had a caravan of fourteen camels, each animal packed with provisions and military stores. With this load they travelled from thirty to forty miles daily, and could subsist in the most barren country, going for a number of days without water. Camels were at one time introduced into Nevada as freight-carriers, and it is said they throve well; but our horses could not become accustomed to them, always taking fright, and their use was in consequence abandoned.

And this brings me to consider wagon-roads, without which, obviously, there could be no considerable wagon transportation. Among the first acts of the legislature of California was one providing for the construction of public highways. Special acts followed at subsequent sessions. Among the first of which we

hear was a plank road from San Francisco to Mission Dolores, according to an ordinance passed November 18, 1850, by the city council, and ratified April 5, 1851, by the state legislature. Santa Cruz and Santa Clara counties were authorized about the same time to construct a wagon-road across the Santa Cruz mountains, between the town of that name and San José, the work to be done by contract, and paid for out of a fund provided by a special tax upon real and personal property, not to exceed one quarter of one per cent. But this road was not completed before 1857.

County governments were expensive, and with the best designs the people found it impossible in their municipal capacity to construct and keep in repair highways at all commensurate with the requirements of travel. Between the principal towns the original trails by constant use came to be passable for wagons in the dry season, but not being graded and protected by drainage, were often in the rainy season covered with water, and a slough of despond to the unlucky traveller. At such times the cost of goods as well as of transportation rose to fabulous prices. It was here that private enterprise afforded relief, and literally bridged the chasm in the way of trade. Sometimes it was the miners who resolved to free themselves from the extortion practised upon them, and at others the work of a company which designed to enrich itself at the expense of the freighters. In the end the expenses came out of the pockets of the consumers.

I find that in May 1850 the miners at Coloma cut out a road from that place to Georgetown, employing seventy men at eight dollars per day. A bridge was erected across the south fork of the American river by J. T. Little at an expense of $20,000, from which he collected tolls at the average rate of $250 a day. I find, also, that an obliging legislature in 1852 authorized James L. Freaner to construct a wagon-road from Sacramento valley to the Oregon line, and to

collect tolls on the same at the following rates: for every road wagon, five cents per mile; for every coach or mail wagon, eight cents per mile; for every draught animal attached to any vehicle, one cent per mile; for every pleasure carriage, six and a quarter cents per mile; for horses or mules with riders, two and a half cents per mile; for all loose horses or cattle, one cent a head per mile, and the same for sheep and other small stock. In addition there might be charged and collected at each bridge or ferry necessary to be used across the Sacramento, Pit, or Klamath rivers, not to exceed $2 for every road wagon, $3 for every coach or mail wagon, 50 cents for every animal attached to a wagon, carriage, or coach, $2.50 for every pleasure carriage, $1 for every horse or mule with a rider, 25 cents for every footman, and 25 cents for every head of loose stock. The motive for this overcharge may perhaps be found in a section of the act devoting five per cent of the receipts from these tolls, after the first five years, to the replenishing of the state treasury.

The same legislature authorized a company, consisting of fourteen members, to construct a wagon-road from the Sacramento valley to Humboldt bay; but in this instance the tolls were about half the amount authorized in the former act, although five per cent was made payable to the state after the expiration of five years, as in the first case. Even greater abuses were practised with legislative sanction, as when the Sacramento and El Dorado county road to Washoe was so covered with exactions that it cost the wagoner with a six-horse team $5.50 one way, and $3.25 the other; or with an eight-horse team, $7 50 on the up grade. One dollar of this was charged by the counties, which constructed twenty-eight miles of the road, and the remainder by two companies, which had obtained authority to lay out two branches or turn-outs of five and twelve miles respectively, possessing some advantages over the old road. It must be admitted that $2 50 for the privi-

lege of driving over twelve miles of a dirt road was an extortionate charge to be made in 1862, when it might be supposed that the disposition to commercial robbery was somewhat abated in the people. Yet the wagoners paid the tolls, and do not appear to have complained. The legislature in its road laws first ordered that in certain counties half the fines collected for selling liquor to Indians should be applied to road-building, and in others that a special tax, not to exceed four dollars, should be levied, and finally hit upon the plan of authorizing the counties to pay for their roads by collecting the tolls, not to exceed three per cent a month upon the cost of construction, and commissioners being appointed to adjust these matters.

In the valley portions of this state plank roads were early advocated, the most important of which was one from Nevada City to Marysville, and another from Sacramento to Nevada City, via Auburn and Grass Valley, in 1853, which projects finally failed. The country being for the first ten years occupied with the immediate necessity of getting money, which it spent again in a free-handed manner, not looking to the importance of putting some of it back into the improvement of commercial facilities, showed really very little interest in its roads. It required, indeed, more than the first decade to wear off the feeling in most minds which each person secretly cherished, that he was going back to "the states" when he had made a little more money. Only the actual settlers upon lands and those who were compelled to travel unimproved trails, miscalled roads, felt any interest in the matter.

From this general charge of indifference must be excepted that part of the subject which related to the mountain trails leading into California, by which the annual immigration entered the state. A common sentiment of humanity as well as a regard for the best interests of the state or of individual counties, or even

persons, suggested the necessity of improving one or more of these roads.

Few who have not beheld them can conceive of the difficulties to be overcome in making a wagon-road over the Sierra, whose frequent ravines and awful chasms intersect the general course or turn it completely aside. These cañons have a depth of from one to two thousand feet, and above their banks tower majestic ridges of equal height. For instance, taking a direct line in Placer county from Bear river to the middle fork of the American river, in a direct distance of eight miles the cañons to be crossed aggregate 6,000 feet of rise and fall; and in the higher portions of the Sierra the chasms are of still greater depth, if not frequency.

The general configuration of the mountains is, however, that of a mighty dorsal column, with ribs running off into the valleys on either side. Rising out of it at intervals are lofty peaks, and between these are summits more or less level. When one of these is found with a rib, however broken, leading down to the plains, it becomes a pass. The passes of the Sierra Nevada, unlike those of the Rocky mountains, are narrow, and approached with difficulty.

The first wagons which came into California entered by the Walker pass in 1843. The train which crossed the Rocky mountains by the South pass turned southwest from Fort Hall, and travelled the Humboldt route to the eastern slope of the Sierra, keeping down along the base to the headwaters of Kern river before finding a passage into California. The second entered in 1844 by the Truckee pass three and a half degrees farther north, and in 1845 and 1846 others entered by the same route. In 1847 a party crossed the Sierra by the head of the Humboldt and Carson rivers, supposed to have had wagons, but of that I am not certain; however, the Mormons of Carson valley in 1848 visited the mines with loaded wagons by this route which led directly to Placerville and

Sacramento. Several parties from Oregon with wagons and a portion of the immigration entered by the Lassen pass at the head of Pit river. Thus we have no less than four passes across the mountains that fenced off California from the interior of the continent, which were travelled with no other improvement than such temporary labors as the immigrants were forced to bestow previous to 1849, when a large body of people came in by the two chief routes—the Carson and Truckee passes—followed by other large migrations for 1850 and 1851 over the central transcontinental line, as well as a considerable number of wagon-trains by the Gila or southern line of immigration.

Each year saw a great deal of destitution and suffering caused by the difficulties of the road, which began almost immediately after leaving Salt Lake, and increased as the season advanced, until when the Humboldt desert was reached where the worn-out teams had forty miles of travel without water to encounter, and where many perished, while their owners, famished and footsore, were ready themselves to lie down and die. Much had been done by the people of California to alleviate these miseries by sending out to meet the immigration parties provided with fresh food and medicine. The legislature of California in 1852 appropriated $25,000 for this purpose; and the same year $13,000 was expended in constructing a free road from Yankee Jim's in Placer county to the Washoe valley. The expenditure was insufficient to complete the improvements, and the road so hopefully undertaken soon fell into disuse. The county assumed the remaining indebtedness of $7,000, but failed afterward to keep its property in repair.

This was the position of affairs in regard to a road over the Sierra in 1855. The Truckee and Carson passes continued to be used by the greater part of the immigration from Missouri, Iowa, and the middle range of states, while the southern overland travel

came in by the Gila, and filtering through Warner and Tejon passes in the Coast range, Tehachapi pass in a spur of the Sierra Nevada and the Cajon pass in the San Bernardino mountains, scattered to the various seaboard towns, or made its way to the mines of the San Joaquin district.

When it began to be urged that a road should be provided which would furnish a proper highway of travel and the passage of a transcontinental mail, the subject of passes assumed greater importance. Aside from the fact that the bulk of immigration had always taken the central route, whose terminus led to the most populous part of California where their wants found quickest relief, there was the important consideration that a community with commercial necessities was already growing up in Carson valley, and that the natural seaboard for Utah was the Pacific. As early as 1851 the Mormons had made a settlement in San Bernardino, coming in by a road through the Cajon pass, which they had since kept open, and which was laid out with the object of securing a seaport connection, and in which project they had failed.

In the discussion of routes the southern element of population in California naturally preferred the line through Texas, New Mexico, and Arizona; and for an all-the-year-round road it had freedom from snow in its favor. But on the other hand, it was extremely hot in summer, was not free from devastating storms of rain and wind, and entered the state four hundred miles from the centres of business. However, something must be done, and that without further delay; so in 1855 the legislature appropriated $5,000 for a survey of the several passes, for the purpose of deciding upon their respective merits, with a view to the construction of the long talked of road over the Sierra to which the state was pledged to the amount required, not to exceed $100,000. A commission was appointed, to consist of the governor, secretary of state, and

surveyor-general, which was to make the selection on a due examination of the routes.

The old immigrant trail from Salt lake passed along the eastern shore of the lake in a course nearly north, then bending to the northwest round the northern prongs of the lake, joined the trail coming in from South pass via Soda springs and Bear river. Here the united trails continued along the northern boundary of the so-called great desert to the head of Humboldt river, following this stream to where it bends south in what is now Humboldt county, Nevada, but which was then called Tooele county, Utah. Here the trails diverged, one keeping along the Humboldt to its sink, and crossing the Sierra either by the Truckee or Carson river passes. On the trail to Carson river was the forty-mile desert. This trail crossed the mountains south of Lake Tahoe, and forked at its western opening, one branch leading down the ridge to Placerville and Diamond springs, and the other toward Volcano and Jackson. The Truckee trail crossed the Sierra north of Lake Tahoe, and had its western end in Nevada county; and between El Dorado and Nevada counties there was a rivalry, each being aware of the benefits to be derived from securing the terminus of the transcontinental wagon-road.

From the bend of the Humboldt diverged another trail, passing between the Mud lakes in northern Nevada, and entering California by the Fredonyer and Noble passes, in about latitude 40° 40′, on the headwaters of the Feather river. From this route diverged the Lassen trail, which, passing up the High Rock cañon, entered California near the northeast corner of the state. A trail from the bend of the Humboldt to Noble pass ran almost directly west around the south end of Eagle lake, passing through Lassen and Plumas counties. From the last named trail another branched off near Susanville, and crossed the Sierra at no great distance south of Noble's by Fredonyer pass. Beckwourth pass was at the head

of the middle fork of Feather river, and the Downieville trail crossed within a few miles of Beckwourth's. The distance from Salt Lake City to the western foot of the Sierra was about 700 miles, or 721 miles by the Ruby valley route from Salt lake to Sacramento.

The southern route from Salt lake into California ran along the valley of Jordan river and Utah lake through Parawan, Cedar City, the Vegas de Santa Clara, or Mountain Meadows, thence along the Rio Vírgen, across the Mojave desert, and through the Cajon pass into San Bernardino valley, a distance of 580 miles. On this route there were two jornadas, or journeys without water, one 45 and the second 55 miles in length. With this exception the road was a good one, being kept in repair by the Mormons, who had a settlement at San Bernardino dating from 1851. From San Bernardino to Los Angeles was 137 miles, making the distance from Salt Lake to the seacoast about the same as to the Sacramento valley. But should the traveller's destination be San Francisco or the mines, he would have still another 400 miles over a road partly mountainous.

There was still another route from Salt lake to Carson valley than the one via the Humboldt. It left Salt lake, crossing the Jordan at the city, passing through Willow valley on the south side of the lake, and running about one hundred miles west; thence southwesterly through Ruby valley, after leaving which in fifty miles it struck Reese river, and kept then in a southwest course to the head of Walker lake, and up Walker river to the bend, whence it ran northwest to Genoa in Carson valley. This was in part Frémont's survey of 1845, and in part the survey of an explorer from Salt Lake named O. B. Huntington, in 1854, who was the discoverer of New, or as it was afterward named, Reese river. This route had not been fully explored in 1855, and although, as will be seen, a portion of it was subsequently adopted by the mail line, the route at the western end was car-

ried much farther north. The same route was followed by Steptoe's command, with wagons, in 1855, which came into Carson valley from Salt lake, and proceeded to Benicia before continuing its march to the Columbia river, where it arrived late in the autumn.

All this and more was laid before the California legislature, which in 1855 ordered the survey before referred to, and which offered assistance to the amount of not more than $100,000, for which the state should issue bonds payable in ten years, the money to be expended only on the mountain portion of a route to be chosen by a commission, to consist of the governor, the secretary of state, and the surveyor-general, the contract to be let to the lowest bidder.

The result of the survey, which was undertaken at the suggestion of state Senator Sherman Day, was that the Placerville route was recommended, and the portion which the state undertook to improve commenced in Carson cañon, which it followed to Hope valley and over Luther pass, this was travelled with wagons in 1854 by Mr Luther of Sacramento, along the north bank of Marlettes flat, down Hawley hill on the east side of Lake valley, and crossing the southwest branch of Carson river, passing over Johnson's hill to Slippery ford, thence to Sportsman's hall, Brockless' bridge, Bartlett's bridge, and down the south branch of the American river to Placerville.

The altitudes of the survey were as follows:

STATIONS.	ELEVATION.	STATIONS.	ELEVATION.
	Feet.		Feet.
Genoa in Carson valley..	4,537	West pass.....	9,036
Daggett's.....	4,417	Tragedy springs.....	7,512
Cary's hill	5,032	Camp springs.....	5,197
Head of Carson cañon..	6,188	Taylor's	4,517
Hope valley	6,535	Forks of road.....	3,942
Red lake	7,247	Sportsman's hall.....	3,246
Carson pass.....	7,952	Hawley's.	2,674
Camp 2.....	7,176	Placerville.....	1,755
Camp 4.....	8,736	Sacramento.....	39

The efforts of the surveyors were to improve upon the old Carson road, which, although in the main a ridge road, had thirty-two miles of an elevation of from 7,000 to 9,000 feet above the level of the sea; the route chosen having but three miles of altitude not to exceed 7,200 and an elevation below that of the old road of from 500 to 1,500 feet throughout. As this part of the subject bears upon railroads, the following table is interesting, containing, as it does, the comparative extent and duration of snow-fields on the adopted route, the old road and other routes starting from Carson cañon:

SNOW REMAINS DURING YEAR.	ALTITUDE ABOVE THE SEA.	ROAD ADOPTED.	JOHNSON'S ROAD.	OLD CARSON ROAD.	BRADLEY'S CUT-OFF.
	Feet. Feet.	Miles.	Miles.	Miles.	Miles.
	2,000 to 3,000	6	2		
1 month	3,000 to 4,000	13	4	6	6
2 months	4,000 to 5,000	10	7	7	8
3 "	5,000 to 6,000	9	14	10	16
4 "	6,000 to 7,000	11	22	13	22
6 "	7,000 to 8,000	3	3	24	9
8 "	8,000 to 9,000			8	
8 to 9 "	over 9,000			1	

The immigrants, therefore, in order to avoid the sharper hills and deeper gulches of a possibly lower pass, had preferred to climb to an elevation of 9,000 feet to secure a road less broken. As they arrived at the pass late in summer when the snow was off the ground, this would do very well. But in surveying for a road to be kept open through the winter, high altitude was to be as far as possible avoided. Not only that, but from the vicinity of the lofty peaks surrounding the old passes and protecting the snow from the action of the sun's rays, it was necessary to run the road as far as practicable along the southern exposures of the hills, and this the survey of 1855 was believed to have done.

The legislature accepted the report of Surveyor-general S. H. Marlette as conclusive, and $50,000 was expended in changing the old immigration road so as to improve some of its most objectionable parts, and

entirely avoid others. It served the public demand for a couple of seasons, but, being neglected and exposed to severe storms, became unfit for travel.

In March 1856 Day secured the passage of a bill, to be submitted to the people, appropriating various sums from $20,000 to $100,000, amounting in all to $240,000, for the survey and improvement of five wagon-roads over the Sierra Nevada, namely, via Noble, Henness, Luther's, Big Trees, and Cajon passes, to be paid for in state bonds running ten years at seven per cent interest; the annual tax for interest and sinking fund to be three cents on each $100 of taxable property. Nothing came of the proposition, the supreme court pronouncing it unconstitutional. Owing to the many petitions in favor of their particular routes, and to the opposition of the advocates of a Pacific railroad, who thought it better to expend the money on one railway than five wagon-roads, it would have been impossible without this decision to have secured unanimity of choice. The following year, however, congress granted $550,000 for the construction of a wagon-road from Fort Kearney via the South pass and Salt Lake valley, to the east boundary of California near Honey Lake valley or Noble pass. One of the California company's stages was driven from Oroville to Honey lake across the Sierra May 29, 1857, meeting with no serious impediments. This was the first stage ever driven over this range of mountains.

This adoption of a more northern route stimulated the counties of Sacramento, Yolo, and El Dorado to unite in improving the Placerville road, which was done; and in June of that year the directors of the road company formed to make the improvements were driven over the line in a Concord coach, and a stage line to Genoa was established immediately thereafter by the California Stage company. The making of the Placerville route a mail line established it in public favor, and secured its passable maintenance,

although it had still a narrow bed and many steep pitches and sharp turns. The reconstruction of the worst portion was completed in 1858 at a cost of $50,000, raised by a special tax. The legislature was then asked for an appropriation of $50,000 more to make it a good coach-road, which it was not, notwithstanding the improvements put upon it.

But nothing more was done by municipal or state authority. Two branches were constructed by private enterprise for private gain, and it was not until after the discovery of gold and silver in Carson and Washoe valleys, that a company was formed which made this one of the best roads in the United States, over which six-horse coaches and fourteen-mule teams travelled in an endless procession to supply the wants of a new and growing state. This was not accomplished without considerable difficulty. The line was removed by private means to the south side of the American river in 1860, and in 1861 it was opened for loaded teams. The grade being easier and also a little shorter, travel took the new route. But in the extraordinary storms of 1861–2 both the old and new routes became impassable. The private companies could by tolls recoup themselves for losses and expenses; but the county could not repair that portion under its charge, and as the new line ran into the old one at either end it was of little use to improve the one unless the other was put upon the same footing. The board of supervisors of El Dorado county then became authorized to collect tolls, and out of these the improvements were finally made by a company to which the county road was leased. Out of this lease fortunes were made, as well as out of the branches. Their value to the owners was an ultimate cause of the Central Pacific railroad taking the Truckee pass, and of Placerville falling into decay, through a cessation of the freighting business and travel, as will be seen by reference to my history of railroad construction and transportation.

Even in the best days of the Placerville and Carson road it had the annual struggle with snow in the higher portion, where for twelve miles wheels were useless and passengers and freight were transferred to sleighs. It sometimes happened that a station was snowed under, and the visitor was compelled to descend eighteen feet from his level to the level of the inn floor. Yet in May no one would have suspected the fact or have believed the story, were it not for the marks of snow level on the flagstaff which all patriotic Americans erected in the sixties.

Six daily stages ran from Folsom to Placerville, four from Placerville to Carson City, and two from Carson to Virginia City, making twelve coaches on the Pioneer stage line, which travelled this route daily both ways. This company employed 600 horses, and 50 men as agents, clerks, drivers, etc. There were 93 hotels on the route, with accommodations marvellously good considering the distance from which their supplies were drawn. The estimated amount of business done over this mountain road in 1861 and 1862 per annum was

30,000 tons of freight at $100 per ton	$3,000,000
36,500 passengers at $30	1,095,000
Mails and express	125,000
Total	$4,220,000

The same motives that governed the El Dorado county people influenced the population of Placer and Nevada counties through which ran the Truckee pass road. The distance from Sacramento was 141 miles, or four miles shorter than via the Placerville route. In 1856 Placer county had a partial survey made with a view to improving the immigrant road via Donner lake, but the scheme failed, and it was left for private means to construct mountain roads after the settlement of Nevada by a mining population.

The first undertaking in this direction was the organization of the Truckee Turnpike company in 1859 to construct a road through Henness pass, connecting

at North San Juan on the Yuba river with a turnpike from Marysville, built by the Henness Pass Turnpike company. Joining their forces at North San Juan they completed the road to Virginia City at a comparatively trifling expense, which was travelled by stage and express lines for ten years, but without being able to draw so far north the bulk of travel or freight traffic.

The road which did divide the trade with the Placerville route was one constructed by the Central Pacific Railroad company or its principal stockholders, Stanford, Huntington, Crocker, and Hopkins. It commenced at Dutch flat in Placer county and terminated on the Truckee river, where it connected with other roads to all parts of Washoe and Humboldt counties in Nevada. It was a good road, with an easy grade, and was wide enough for the passage of heavy freight wagons, and was built to be a feeder to the Central Pacific railroad. It was opened to Virginia City in August 1864, the opening being celebrated by a race between the stages of the Pioneer Stage company on the Placerville line and the California Stage company on the Dutch flat route. The distance, as I have said, was not much greater on the old than the new road, and the ordinary time from Sacramento or Freeport, where the stages took the mails and passengers, was about twenty-three hours, or thirty-one hours from San Francisco. Both routes included a section of railroad travel. From Freeport to Latrobe, where the Pioneer stage started, was thirty-seven miles; from Sacramento to Newcastle, where the California company's stage started, was thirty-one miles. The Central Pacific railroad had a good track and engine and the thirty-one miles was run in forty-two minutes. The Sacramento Valley railroad had neither a good track nor fast locomotive, and made the run of thirty-seven miles in an hour and a half. When the Pioneer coach had reached Strawberry valley, nearly twelve hours from Freeport, and nearly fifty miles from Virginia, a dispatch was sent

back which read: "Heavy rains, heavy road, heavy load; just arrived." An hour later a dispatch announced the arrival in Virginia City of the rival company's stage, beating the Pioneer line by about nine hours. The California stage company had made a special trip in thirteen hours from Sacramento to Virginia, which was one hour longer than the Pioneer line had taken to make a special trip from Virginia to Sacramento in June. A good deal of acrimonious newspaper correspondence ensued, and the Dutch Flat company was accused of using unfair advantage to secure this "miraculous speed." The miraculous speed was not maintained, but with the help of the Central Pacific railroad the California Stage company was able to outrun its competitor. As the railroad progressed it forced the stage and freight wagons to make connection with its terminus, and the forwarding houses to move with it. So important was the business that the public for a long time suspected that the railroad was only a feeder to the wagon-road; and from this view of the character of the enterprise came the name of Dutch Flat swindle, by which the Dutch Flat turnpike was known. By the time the railroad reached Colfax, this route commanded the greater part of the freight and passenger business between California and Nevada.

What the revenue of the wagon-road company was is unknown, but that it was enormous is evident. Some idea of the business which it took away from the Placerville route may be gained from the fact that former teamsters on that road often reported a detention of several days in the passage from Virginia to Placerville, occasioned by the difficulty in passing loaded wagons going in the opposite direction, which constituted a continuous train on the narrow grade. The toll roads leading down the eastern slope, it is said, annually paid their owners double their cost. The amount collected, of course, depended upon the length and cost of a road. The following rates fixed

in 1865 are illustrative of the comparative incomes of the Dutch Flat and Donner Lake road, and the Rough and Ready and Nevada turnpike, a short road in Nevada county:

	D. F. & D. L.	R. & R. & N.
Wagon and ten animals	$17.00	$ ....
" " eight "	15.00	.62½
" " six "	13.00	.50
" " four "	11.00	.37½
" " two "	9.00	.25
" " one "	5.00	.12½
Loose stock	.50	.03

But rates had been reduced since 1858, when another short road in the same county charged a toll of three dollars for a wagon and six animals. In 1879 it was one third of the former rate. Nevada county had no less than thirty toll roads, and Placer fourteen. As the counties grew richer, they purchased these roads and made them free, few now remaining which are not county roads.

The counties at the northern and southern extremities of the state were backward in securing roads. The north being broken, and thinly populated, except by transient mining communities, depended upon the pack-trains, which were loaded at the coast, and which made their way into the interior over the roughest of mountain trails, often being troublesomely beset by the Indians, until after 1856. Pack-trains also fitted out at Marysville or Sacramento for the northern mines, until such time as steamboats commenced running to Red Bluff. Then wagons began to be used to carry goods to Shasta, and roads in other directions were talked of.

It should be mentioned, however, that in 1852 James L. Freaner, with four others, namely, John Brands, Jackson, Warren, and a Mexican known as Adobe John, set out to locate a wagon-road from Shasta to Yreka, via Sheep rock and Pit river, and

were all killed by the Indians. Nothing was known of their fate for four years, when it was divulged by the murderers. In 1856 A. M. Roseborough and Samuel Lockhart undertook to lay out a road on the same route, and piloted a train of thirty-five immigrant wagons over it, establishing a ferry on Fall river. Soon afterward the California Stage company put on a line of stages to Yreka, and freight teams began to carry the merchandise of the country. In 1858 a road was made over Scott and Siskiyou mountains, which became a part of the stage route to Oregon. Congress had been appealed to in 1855 to appropriate money for a military road from Crescent City to Shasta valley, but the application had failed, as also did the project for a plank road between these points; and the improvement of wagon-roads has depended upon the gradual growth of county wealth, and the requirements of staging.

Most of the important, or, more properly, long wagon-roads were constructed after 1860. The Big Tree route, via Murphy, was opened in 1864, although not completed until the spring of 1865. The Amador and Nevada wagon-road was a transmontane construction, opened in 1863, which charged ten dollars for loaded wagons with twelve animals, less for smaller teams, and half price for teams returning without freight. This road commenced at Antelope springs, in Amador county, and ran east along the dividing ridge which separates the Consumnes and American rivers from the Mokelumne river to Carson cañon, where it joined the Placerville road. It was a shorter route than either of the others from Sacramento or Stockton, and had its share of patronage before the great railroad reduced them all to the rank of merely local highways.

In 1866 a road was opened from Chico to Owyhee, 401 miles, and thence to Virginia City, Montana, a total distance of 801 miles, over which stages and freight wagons were run. No toll was collected,

except by the Indians, who sometimes took the whole outfit, and who made it impossible for some months to keep horses enough on the route to haul the stages. This route was opened from the Sacramento river partly to avoid the "twenty-feet-of-snow-and-forty-mile-desert Dutch Flat route," as the friends of the Chico enterprise scornfully denominated the Central Pacific's feeder. The plucky Idaho company succeeded in drawing a large body of travel over their wilderness road, and thereby saving a good deal of money in tolls via Nevada, as well as sea and river transportation via Portland, Oregon.

The wagon-road to Yosemite via Stockton and Coulterville was changed to a route via the Merced grove in 1873, but it was not until 1875 that a road was opened, via Mariposa, which allowed of the passage of wagons, and enabled the tourist to dispense with horseback travel for a portion of the way. The road to the geysers of Sonoma county was not completed for driving before 1861. It then ran over the Hog's back from Healdsburg, but in 1869 a toll road was constructed from Knight valley, and a stage line placed on the route; and in 1874 another toll road from Cloverdale, up Sulphur creek, was constructed. A road to the peak of Monte Diablo was completed in 1874, which is passable for pleasure wagons, though it is not kept in perfect repair. A trail also has been made to wind to the top of Mount Tamalpais for the benefit of sightseers; and few are the localities in the central and northern portions of the state to which there are not now passable wagon-roads.

The south, until within a period opening about 1880, progressed more slowly. The Tejon pass in Kern county was improved in 1854 so as to be passable for wagons, and in 1856 a road convention was held at Murphy, in San Joaquin county, in which the southern counties joined, to promote the construction of a road to Carson valley via the big trees, but the

object of the convention failed at the time. The first great undertaking in the extreme southern counties was the opening of communication between San Diego and Fort Yuma to facilitate commerce with Arizona and New Mexico. As in the case of the northern division of the state, it had been entered by immigration and marched over by troops without, however, giving much attention to the commercial significance of easy transportation, although some trade with Arizona was carried on which was likely to be diverted by the Kansas Pacific railroad.

In 1870 the San Diego and Fort Yuma Turnpike company was organized for the purpose of opening a new route between these points 75 miles shorter than the then travelled route from San Diego, and 110 miles shorter than the road from Los Angeles to Yuma, by which freight would be reduced from six to four and a half cents a pound. The company incorporated with a capital of $50,000, A. Pauly being president, and the board of directors consisting of J. Nash, W. J. McCormick, John G. Capron, S. W. Craigue, C. Dunham, C. L. Carr, and D. W. Briant. The directors were unable to complete their designs as they wished. The amount of freight passing over the road in November 1870 was 150 tons monthly. The report of the secretary in 1872 showed that of the total amount of stock subscribed, only $10,600 had been issued, and of scrip $3,476.35, of which $567.35 was unredeemed. The tolls for the year amounted to $1,082, with a discount on currency which reduced its earnings to $1,057.75. As the expenses of the road amounted to $818.87, its net profits were $238.88. The total assets of the company, including cash, were $288.56. Fortunately it had no liabilities. According to the secretary's report there had been a falling off during the year of one hundred per cent, owing to "the facilities for supplying the territories via the gulf" having been increased, and the high cost of hay and grain. This would be

a discouraging account to render were the value of the road to be judged by its net profit to the company. Its indirect advantages to San Diego merchants and other classes of citizens had been great, among which were to be reckoned the increased mail facilities and passenger traffic. The anticipations awakened about this time of a railroad from the east to San Diego checked the interest in wagon-roads, which it was expected would soon be replaced by the swifter steam motor lines.

In 1874 there were the following roads leading out of San Diego: to Yuma, 197 miles; to the Julian and Banner mining districts of the county, 55 and 65 miles; to San Luis Rey, 45 miles; to Temecula, 60 miles; to Warner's rancho and Agua Caliente, 75 miles; to San Bernardino, 120 miles; to Camp Mojave, 437 miles; to Phœnix, by branch roads from Maricopa wells, 405 miles; to Camp McDowell, 461 miles; to Prescott, 515 miles; to Camp Verde, 622 miles; to Albuquerque, 918 miles; to Santa Fé, 990 miles. To points in the coast range of counties—to Los Angeles, 124 miles; to San Buenaventura, 194 miles; to Santa Bárbara, 225 miles; to San Luis Obispo, 323 miles; to Paso Robles, 3 1 miles; to Salinas, 395 miles; to Gilroy, 432 miles; to San José, 462 miles; and to San Francisco, 516 miles. Another route to San Francisco branched off at Los Angeles to Bakersfield, 316 miles from San Diego, where it connected with the Central Pacific branch railroad to Oakland, 614 miles. These were the roads connecting county with county, and made passable for mail and other wagons by the county funds. The imported freight of the southern counties was delivered at San Diego, San Pedro, Santa Bárbara, and San Luis Obispo by the coast line of steamers and had not far to be carried inland, while the exports, which were light, travelled the same routes.

From this sketch of the wagon transportation required by so vast a state as California, together

with the cost in road-building, in tolls, and in freight and passage money, some idea may be formed of the amount of capital involved in this one branch of the business; nor is it unworthy of remark that this immense expenditure covered a space in the state's existence of less than twenty years, or that the means of transportation so costly then have been obsolete for the same length of time, except in the most remote localities.

Of those necessary, and sometimes costly, adjuncts of land travel, ferries and bridges, it is fitting that some mention should be made. Ferries were first established by the aborigines, who for a trifle conveyed travellers across streams not fordable by the simple contrivance of a tule raft, which they rowed, or dragged across by a cord held in their teeth while they swam in advance. The Mexicans improved a little upon this frail wherry by substituting rude canoes, and immigrants a wagon-box; and many were the Americans who in early mining travel took without charter a ferry franchise, and with an inexpensive—or what should, but for the times, have been an inexpensive—and clumsy board raft and a stout cable, set themselves up in a profitable business. According to the *Californian*, an excellent ferry-boat was in operation at Montezuma in February 1848, which could cross twenty head of horses or cattle, besides which there was a good wagon-road from Montezuma to Pueblo de San José and the Sacramento valley.

Three Yankees, says Taylor in his *El Dorado*, established a ferry on the San Joaquin, between Livermore and Stockton, charging for carrying over a horse and man two dollars, their receipts ranging from $500 to $1,000 a day. They had in connection with the ferry a tavern and grazing-camp which were very profitable. Their boat was a heavy flatboat, which they had built with their own hands, as well as a launch of sixty tons, which ran between Stockton and

San Francisco. Little also relates that, having a great many goods to transport to Coloma, it was an object for him to purchase the ferry at that place, which he did, and subsequently built a bridge costing $20,000, which soon paid for itself, even at reduced rates, after which he built several others, at Salmon falls, Spanish bar, Middle fork, and North fork, all of which were highly productive property.

In 1855 Keeler's ferry on the Stanislaus river sold to Dent and brothers for $12,000. There were six other ferries on that stream, which, if they were equally valuable, made the river a source of wealth to some, if of heavy expense to others. Dean says, in his statement, that he put a ferry on the Tuolumne river in 1850, consisting of a simple dugout, which was finally carried away with a man in it. Subsequently a gradual improvement was made, in all degrees, from a scow with a steam engine and a tiny cabin to the most elegant and commodious ferry-boats in the world, such as ply on San Francisco bay.

The ferry between Oakland and San Francisco has always been known as the Oakland ferry from the following circumstances: In May 1852 the board of trustees of that newly chartered town passed an ordinance conveying to Horace W. Carpentier the title to the lands within the corporate limits lying between high tide and ship channel, on condition of his erecting wharves and a public school building, which agreement he performed, and received his deed. On the fifth of March 1854 the board passed an ordinance for establishing and regulating a ferry between Oakland and San Francisco, and contracted with Edward R. Carpentier, his heirs and assigns, to put in operation and maintain a ferry for twenty years on this route, granting to him the exclusive franchise, and reserving to the city one per cent of the net profits. Carpentier contracted with Charles Minturn and the Contra Costa Steam Navigation company to run suitable steam ferry-boats, and on the 21st of October

1854 H. W. and E. R. and Harriet Carpentier conveyed to Minturn and the above company all the rights, powers, franchises, and immunities of the Oakland Ferry company, which were, as they believed, exclusive, to run ferry-boats between any part of the water-front of Oakland to San Francisco, or any other place or places. The company constructed boats, and made improvements at an expense which brought their income under their expenses for three or more years. In 1858 the Carpentiers themselves set up an opposition line from San Antonio creek, when the company brought suit to enjoin them from running a ferry, which injunction was not sustained, the judges of the United States court deciding that the laws of the state did not justify a monopoly, and that in any case the great arms of the sea were free to competition and did not come under the ferry laws. When the twenty years' contract had expired Carpentier transferred his rights to the Central Pacific railroad company, which now owns the Oakland water-front. First-class ferry-boats now run between San Francisco and San Rafael. A ferry was opened to Berkeley in 1874 which has been superseded by the railway from the Oakland ferry.

Ferries where bridges could be used were soon superseded. Indeed, bridges were a necessity after the introduction of freight-wagons, the precipitous banks of the mountain streams rendering ferries generally impracticable. The first bridge across Yuba river was erected by John C. Fall for the Park's Bar Bridge company in 1851, and cost $30,000. It was sold afterward to William Husley; and in 1858 being undermined by the current one-half fell into the stream. In consequence of the change made in the river by mining débris it became useless, and was removed by the county.

The first bridge over Feather river was erected in 1853, between Marysville and Yuba City, by J. C. Fall and George M. Hansen. A ferry was run in

opposition to it for a year or two by W. S. Webb, when the proprietors entered into a combination and Webb became part owner of the bridge. It was a cheaply built concern and ought not to be well spoken of, for in 1854 one span broke down under the weight of a drove of cattle, and after being repaired fell again in 1861 with the weight of two teams upon it. Both these structures collected heavy tolls.

At the time when the latter bridge fell, and before a controversy was going on between the owners of this and other toll bridges on one side and the public, headed by W. H. Parks, who represented Yuba and Sutter counties in the state senate, on the other, and who had introduced a bill authorizing the construction by Sutter county of a bridge across Feather river, to remain a toll bridge at a low rate only until the cost of its construction had been discharged, when it should become free, except when in need of repairs, and only enough money should be collected to keep it in good condition. This was striking at the root of a species of legalized freebooting, but Parks carried his point, and although the Fall-Hanson-Webb party obtained an injunction on the ground that the county bridge was an infringement of their charter, it was sustained by the courts, and in 1861 the Parks free bridge, as it was called, was completed at a cost of about $40,000, and the county fixed the toll at ten cents a team, while the opposition made theirs, which had been rebuilt, free. Thus affairs stood when the high water of December 1861 solved the perplexity by carrying off the Fall-Webb bridge and leaving the county bridge standing. Tolls were then raised to twelve and a half cents for a team of two horses, and six and a quarter cents additional for each additional two horses. The travel over it was so great that in 1871 it was declared a free bridge.

A bridge was erected in 1861 over the Yuba river at Simpson's ferry, a mile and a half above the junction of the two rivers, by Mrs Simpson, being built

upon piles for a distance of 800 feet. The flood of that winter carried away 300 feet of it, and there being now no bridge across the Yuba at Marysville, the citizens determined to erect one under the Parks bill, which had become a law. The plan was furnished by a committee consisting of W. H. Parks, Peter Decker, W. T. Ellis, Charles Schidell, and one other, and after considerable contention as to the locality a bridge 1,500 feet long and costing $36,000 was constructed by Parks and A. J. Binney, who received in payment scrip on the bridge fund in the county treasury, which was redeemed by the tolls received at the bridge in the same manner as in the case of the Feather river structure.

An experiment was tried with a tubular iron bridge above Parks bar by Matthew Wood, which proved a failure. When the supports were removed it fell, being unable to sustain its own weight. Besides the two Marysville bridges there were standing in 1858 eleven others in the county of Yuba, all of which were private property, and collected tolls.

The Nevada county court of sessions, in August 1850, granted licenses to Rideout & Co., to construct a toll-bridge across the middle Yuba at Martinsville and J. K. Dunbar to erect another across Deer creek at the lower crossing. From the rates of toll established—for a footman twenty-five cents, for an animal with a rider or pack one dollar, or without, fifty cents—it is evident no wagons were expected to invade these mountain districts.

The same court in February 1851 granted a license to Matthew Sparks, who kept a ferry, to build a toll-bridge across the middle Yuba at Nye crossing, fixing the rate for a loaded wagon at three dollars and an empty one at two, an animal with a rider or pack at fifty cents, and without at twenty-five cents. Sparks' bridge, which was built by Thomas Hess, was carried away by the flood of the following winter. In 1852 Hess built another bridge, which he sold to Thomas

Freeman in 1854, since which time this place has been known as Freeman's crossing. In 1855 the bridge, was rebuilt, but the flood of December 1861 carried it off, when Freeman removed to some other place and began the construction of another bridge, which was also carried away by the high water of January following. After the flood had subsided he rebuilt his bridge.

There were twelve toll-bridges in Nevada county in 1859, one of the best known of which was erected on the South Yuba by William E. Robinson in 1853, and rebuilt in 1859 by John Webber, by whom it was purchased and who sold it to J. S. Wall, who lost it by the flood of 1862 and rebuilt it the same year, selling it in 1865 to J. M. Black. Bridge property was in good demand during this period of generous tolls.

A bridge at Illinois bar on the south Yuba was built in 1856 by J. L. Cooper and rebuilt in 1863. Cooper and Joseph Kyle, his partner, were murdered here November 26, 1866, for the money in their safe. The murderers were never discovered. In the following June their bridge fell into the stream, carrying with it a loaded wagon and six-horse team, with their driver Thomas Holden, who perished with his horses. By 1869 most of the roads were well furnished with bridges, and the county began about this time to purchase and make them free.

At Nevada City two bridges across Deer creek were carried away by the breaking of Laird's dam February 15, 1857. They were rebuilt. In 1863 that on Main street fell with a drove of cattle, since which date both have been again rebuilt. But the oldest bridge in Nevada City was erected in 1850 below Broad street and a new highway laid out called Bridge street. After doing service for three years the city and county constructed a suspension bridge at Pine street, which was seriously damaged by the breaking of Laird's dam, and although repaired lasted

but a few years. In 1861 it was found necessary to replace it, and the legislature authorized the city to levy a tax of five-eighths of one per cent for the purpose. But the opponents of the tax—those who lived on streets supplied with bridges—brought suit to test the legality of the special tax, which was sustained in the courts. The time wasted in litigation was unfortunate for the contractors, A. S. Halladie & Co. of San Francisco, who undertook the work for $9,000. The rainy season having come on before they could get in place the heavy towers, cables, and anchors, the softening of the earth allowed the anchors to drag and the cables to sag, a defect which the contractors corrected by means of iron rods with screws at the ends, by which the cables were tightened. The bridge was completed in May 1862, and in July it fell with the weight of two loaded ox-teams, killing two men, seriously wounding two others, and killing fifteen out of twenty oxen. The contractors repaired the loss, which was occasioned by a defect in one of the iron rods above mentioned, the cost being thereby increased to $15,000. Suits were brought to recover the loss sustained by them, but the defendants were held not liable.

The Nevada City suspension bridge was the first of its kind in the state. It has a suspended surface of 4,700 square feet; the length of the span is 320 feet, and the width of the roadway 14 feet. The platform is sustained by 59 cross-timbers suspended from the cables by iron rods. The cables are four inches in diameter, and weigh together 36,000 pounds. Each is 503 feet long, and fastened in either bank by twelve-feet iron girders weighing 2,500 pounds. The bridge was repaired in 1875, at an expense of $3,000. The suspension bridge over the Stanislaus river, near Knight's ferry, was erected by Slocum, Ross, and Bell. It was 248 feet in length, 14 feet in width, 40 feet in height, with a span of 140 feet. The buttresses were of solid masonry, and the whole cost $25,000.

Bear river, the principal stream in Placer county, across which went a portion of the immigration by Truckee pass, was not frequently bridged. Its banks were precipitous and rocky, and even to make the early ferries profitable great expense had to be encountered in cutting a road from the water to the level of the surrounding country, along the sides of the chasm which enclosed the river. Some of these ferries were at places having suggestive names, like Rattlesnake bar, Condemned bar, Murderer's bar, and Oregon bar. Bear river bridge, on the road from Auburn to Grass Valley, was one of the oldest, if not the oldest, toll-bridge in the county, and was crossed by a large amount of travel. When the Central Pacific railroad was completed to Auburn in 1865, a company was formed consisting of James L. English, Charles Crocker, Mark Hopkins, W. F. Knox, H. B. Merrill, A. B. Van Arsdale, A. A. Bennett, H. H. Hartley, and E. H. Miller, Jr. to construct a toll-road from the railroad at Rock creek, three and a half miles above Auburn, to English's bridge on Bear river, a distance of six miles. Toll on the bridge was fixed at one dollar for a loaded wagon, fifty cents for an empty one, twenty-five cents for each animal attached to either, fifty cents for a horse with rider or pack, and twenty-five cents for each footman or loose animal.

A similar short turnpike and bridge, known as Mineral bar bridge and road, was constructed by Charles Rice & Co. at a cost of $75,000. It supplanted Rice's ferry, on the trail to Iowa Hill, and during the prosperity of that place was a very valuable property. It is still used by stages and wagons from Colfax railroad station to Iowa Hill, and has some remarkably fine scenery on the route.

The road from Auburn to Yankee Jim's is twenty miles in length, and at an early day crossed the north branch of American river, near the junction with the middle fork, by a bridge which was repaired in 1855

at a cost of $12,000, or with the improvements on the road, $50,000. In October 1867 this bridge was replaced by a new and elegant structure built by H. R. Leonard. Its length is 182 feet, single span, strongly braced, and well covered. A single track across it is laid in blocks similar to the Nicholson pavement to preserve the floor, and the cost of the whole was $10,000.

Nevada county had also a suspension bridge, constructed by W. C. Lyon, at Condemned bar, in 1856, which, however, was taken down in 1865 and removed to the American river, below the junction of north and middle forks, and completed in 1866. It is now on the line of travel from Auburn to Georgetown, Coloma, Placerville, and other points in El Dorado county.

The first bridge constructed in El Dorado was at Coloma, on the south fork of American river, and connected old Coloma with North Coloma on the opposite bank. I have already mentioned it, and the ferry which existed here, which was probably the earliest in the county, and was purchased by John T. Little, who sold it to E. T. Raun, who in February 1851 built a common truss bridge of three spans, and sixteen feet in width, in a substantial manner. In 1855, fearing that the structure might not withstand another season of high water, Raun built another on a higher foundation, and in a still stronger manner. This care availed him nothing, for in January 1862 both bridges were swept away. At this time R. A. Pearris and A. H. Richards were the owners of the property, and in the autumn of 1862 built another bridge, which was also carried off in a later freshet, since which only a suspension footbridge spans the river at this point, the current of travel having been diverted by railroads into other channels.

At Uniontown a bridge was erected in 1851 in opposition to a ferry. It was a joint property. In 1855 it was rebuilt by Pogue, Ingelsby, and Roubaul;

but the flood of 1862 washed away the approaches. Being set high above the water the bridge was undisturbed, and was soon in as good condition as before, in which state it remains to the present. Its owners in 1883 were Pogue brothers and Oliver Merrill. The income from this bridge was from $600 to $800 a month. Often $25 was taken in a single hour.

Raun appears to have been a builder and purchaser of bridges, as he bought from its original proprietor in 1854 a bridge across the south branch of the American river, at Salmon falls, built in 1853. It was on the main travelled road between Georgetown and Sacramento, by the way of Pilot Hill and Centerville. The high water of 1855 carried it off, but it was immediately replaced, sold in 1856 to the same persons who purchased the Coloma bridge, and carried away again by the flood of 1862, since which time this route has been abandoned, except at the dryest part of the year, when the river may be forded.

Raun also built across the middle fork, at Spanish bar, a bridge, which was transferred to Richards in 1857, when the Pioneer stage line ran over it. A ferry was first established at Chili bar by E. and H. George, who also built a toll-bridge in 1853, which was directly on the line of travel between Placerville and Georgetown. Another was erected by McCoy & Co. on Otter creek in Georgetown township in 1854, another by Merrill between Placerville and Diamond springs, and still another by George Oat on the turnpike between Placerville and El Dorado in 1855. On the north fork of the Cosumnes river was one of the first bridges in this part of the county, and another at Yeômel, which connected the northern and southern mines across the Cosumnes.

Sixteen or seventeen miles east of Placerville, where Johnson's cut-off road crossed the south fork of the American river, was Bartlett's bridge, on the immigrant road from Carson valley, and, of course, very much travelled during a portion of the year.

This, like so many others, was swept away by the freshet of 1855 on the 7th of March, and travel was for a time forced to take a different route. B. Brockliss then built a bridge a few miles up the stream, according to the suggestion of a surveyor of the boundary commission. These two points became noted stations on the road to Carson.

The wire-rope suspension bridge at Murderer's bar on middle fork was erected in 1854 by N. H. Smith; and the suspension bridge at Whiskey bar, below the junction, by a company in 1855, costing $50,000. Abraham Brank was the superintendent, who afterward erected a suspension bridge across the American river at Folsom. Abraham G. Kinney in 1855 erected a substantial bridge over the American river at Negro bar, or Folsom, which was opened in August, and on which a heavy toll was collected. About the same time a bridge was constructed over the Sacramento by a company, connecting the city of Sacramento with Washington, in Yolo county, at Broad street and Ann street respectively. This year seems to have been prolific of bridges.

The second bridge erected in El Dorado county was at Mormon island in 1851, by J. W. Shaw, and was a wooden structure of the American truss pattern. Like nearly every other in the country, it was destroyed by the flood of 1855. Immediately afterward Shaw replaced it with a wire-rope suspension bridge, which carried the travel over the south fork until January 1862, when it also yielded to the mighty pressure of the unparalleled inundation and devastating current of the river. Nothing daunted, Shaw replaced it soon afterward, placing the new structure on higher ground. The span of this bridge is one hundred yards, and its breadth twenty feet. It cost $15,000, and was a good paying property. It was sold by Shaw to L. M. Russell and R. P. Culver, who sold it in turn, a few years since, to the counties of El Dorado and Sacramento, which made it free.

In whatever direction mines lay, there was travel, and such facilities as were needed, from one end of the state to the other, whether it was on the Trinity or the Colorado. There are no fine permanent stone or iron structures, no triumphs of engineering skill or cunning masonry to be found in California. All has been done in haste, and to get profits. Peoples, like individuals, must have periods of rapid change and development, and until this is passed it would be in vain to risk a prophecy of what their maturity will show forth. But that California will yet erect public works which shall carry down to posterity a record of nineteenth century civilization seems most probable, something which shall give evidence that we are not lacking in the sixth sense, and that we can enjoy the repose and elevation of soul which comes from the contemplation of the grand and the steadfast in art as well as in nature. In the mean time new routes of travel and new means of locomotion will have caused us to forget the brief pioneer period, when we lavished our gold so freely upon the simplest contrivances in aid of transportation.

The reader doubtless understands that these early chapters on routes and transportation, apart from their intrinsic value, which as fresh and original work, never before having appeared in print, is inestimable, are intended mainly as introductory to the later great development of railway traffic; and as in this development no one in California has played a more practical or important part than A. N. Towne, it is eminently fitting that his biography should be given at this point.

A. A. Towne

CHAPTER IV.

LIFE OF ALBAN NELSON TOWNE.

A Graduate from the Old School of Railroading — The Problem of Transportation — New England and the Far West — The Power of Self-Help Exemplified — Eminent Success Earned by Hard Work — Force of Character and Talent — A Career of Extraordinary Usefulness and Brilliancy.

On the twenty-sixth day of May 1829 occurred one of the most suggestive incidents in the history of economics in the United States. The first locomotive engine ever used in this country, the Stourbridge Lion, built at Stourbridge, England for the Delaware and Hudson Canal company arrived in New York city on that day. Its advent marked the birth of railway transportation in America, which, expanding with marvellous rapidity, has become supreme in importance as an independent industry and a vital factor in the development and control of all other industries. In the outset, evoked to promote commerce, it now creates commerce, agriculture, manufactures, and mining. In the progress of the United States during the last sixty years toward the first place among the nations of the earth in material wealth, enlightenment, and power, it has been the most potent agency. An institution idealizing American talent and enterprise, it has grown with greater speed and into higher efficiency on this soil than elsewhere. At the close of 1890 there were 371,877 miles of railroad in the world, 162,476 miles in the

United States, and 6,348 miles belonging to the Southern Pacific company, together with 7,276 miles of steamship lines. Of its entire property Alban Nelson Towne is second vice-president; and he is also the general manager of its Pacific system which includes all lines west of Ogden and El Paso.

The spokes and felloes of the driving-wheels of the engine, of which the above figure is an exact representation, were of wood; the hubs and tires of iron. The track on which it ran was equally primitive. The lion's face adorned the front of the boiler.

It is noticeable, that he was born on the same day that a throng of curious and interested spectators gathered at the foot of Beach street to welcome the Stourbridge Lion, which was placed upon the rails of the company for which it was imported, on its trial trip, at Honesdale, Pennsylvania, August 8, 1829. To all appearance no two events, so coupled, as to time, could have been more distinct, or more remote from each other in origin. The coincidence, so far as human knowledge can discern, was without design, and meaningless, and might never have been noticed, but, in view of the development of the child, as well as of the locomotive, the mind is incited to speculation. The extent to which it is true that there is a divinity that shapes our ends, and to which at the same time it is true that a man is the architect of his own fortune, are both curiously exemplified in the life of A. N. Towne. His career affords a striking illustration of the power of self-help. For his success he owed the least to others. But fortunately there was a field for him, in which he could attain, perhaps, the highest and best development of which he was capable, a sphere for which his talents were peculiarly adapted. In the fitness of things he was drawn to it; restless and unsatisfied in all other work, he passed from one occupation to another rapidly, so rapidly that the person nearest to him, and most interested in him, recalled with difficulty the different kinds of labor he engaged in before he entered that life for which nature appears to have

predisposed him — transportation. He began his existence simultaneously with that of the transportation of persons and property by rail in this country. Apparently he had but slight control over the circumstances that led him into his life-work. In this, it may be said, was the shaping of his ends by a power beyond him, working through a force in him the ulterior effect of which he could not fashion or foresee. Yet being once brought into the activity destined for him, he was clearly left to his own agency and free will; for if it be correct to say of any man, it can be truthfully recorded of him, that he made himself what he was.

This, in brief, is the life which in some of its features resembles others, but which in its individuality is distinct from most others. It is a force the origin, development, and energy of which it is proposed to enquire into on account of its inherent interest and usefulness in its identification with the history of the Pacific slope. In order to derive the greatest benefit from his experience, he should be as thoroughly comprehended as practicable: in order to appreciate what he accomplished we must know how he was endowed by nature, what qualities he inherited,and above all how he employed his talent and discharged the responsibilities peculiar to himself.

The chief value of biography is not that it excites in us admiration of superlative virtues and achievements, but in this, that it makes known to us how worthy men have lived, and reveals to us how, to the extent of our opportunities and ability, we may go and do likewise. To this end we must know them, sufficiently well at least to realize that however superior they may be to us in those things in which they excel, they are wonderfully like ourselves after all. Such knowledge of our subject establishes a fellowship of interest, and creates a bond of sympathy, without which there is no influence for good of one life upon another. Let us start out therefore and

travel with him, seeing the world as he sees it, thinking as he thinks, until we know him as he is. To thus grasp another life is to assimilate it and infuse it into our own.

In the *New England Historical and Genealogical Register*, memoranda of the Towne family date back to the year 1274, when they are found to have been established at Alvely, a village in Shropshire, England. The lineage is traced through succeeding generations to about 1640, when the first of the name known in the annals of American history, who left descendants, was an inhabitant of Salem, Massachusetts. He was William Towne, whose marriage with Joanna Blessing was solemnized, March 25, 1620, in the massive old church at Alvely, founded in 1123, dedicated to St Nicholas in 1251, and still retaining the same name. They were the progenitors of most of the Townes in the United States.

The birthplace of A. N. Towne was Dresser Hill, in Charlton, Worcester county, Massachusetts. The eldest of nine children, five sons and four daughters, he was of the eighth generation in the line of descent from William and Joanna (Blessing) Towne. His father was Nelson Parker Towne, and his mother, Julia A. Dresser, who were married September 10, 1828. Her descent, also, four generations removed, was from the Townes. They appear to have been a fairly long-lived, laborious, and self-sustaining race, blessed with numerous children, but not with any surplus of what is termed the world's goods. This however was the rule in New England, a necessitous region, in which the difficulties of living made the people economical, strong, shrewd, and independent. Their rigorous climate and unfriendly soil hardened them and made them a community of workers. Labor, among them, was—as it ought to be everywhere and at all times—honorable, and idleness a reproach. But their success in finally making a country rich,

which was naturally poor, was not altogether due to manual toil; their triumph was, also, intellectual.

In the realm of practical and useful inventions, they were without equals in the world. Stern, and at times fanatical in their religion, these old puritans had in them the best stuff out of which to make a nation; without fear of man or beast, with thews of steel and the will to labor for conscience' sake against whatever odds, they were schooled in adversity, trials, and hardship, and by virtue of this discipline became, to my mind, notwithstanding all their angles and radical tendencies, the soundest characters and the best citizens the world ever saw. While we are indebted to other parts of the United States and to Europe for excellent men as participants in the progress and civilization of the Pacific coast, I believe that, all things considered, we owe more to New England for enterprise, intelligence, and character than to all other regions on the earth together.

It was from this stock that A. N. Towne was descended. His father was a cabinet-maker and a mill-wright by trade, but later, and until his death, was engaged almost wholly in the erection of paper mills in the New England states. He had unusual skill and ingenuity in mechanics, a talent which his son inherited. He lived on a farm, to the cultivation of which he devoted a few months in the year, being employed the rest of the time away from home in mechanical work. He left his father's house when quite young to go out and earn a living for himself, so that his education, as to books, was limited to the rudiments of the common school. The knowledge he required for use he got from practical experience. He was a master of whatever he undertook as builder or machinist, thorough in the control of men working under him and efficient in carrying out his contracts. His executive ability was quite marked. Well informed in whatever concerned him, clear-headed, tenacious of purpose and fond of work, his energies

were spent in the maintenance of his large family. He was liberal-minded, well-balanced, and rather free from prejudices in matters of opinion. He entertained decided views, but was circumspect in expression. He was a democrat in politics; in religion, though he embraced no creed, he led a moral and exemplary life. Admirably self-controlled, he was temperate in all things, and deliberate; conservative in speech, his tones were soft and his words conciliatory. Avoiding arrogance in the management of his affairs, all who came in contact with him were made to feel at ease in his company. He counselled his boys to put up with almost any sacrifice, except the compromise of honor, rather than to engage in irrational strife, but if once involved in a struggle, to hold out to the end; yet solicitude to obviate calamity was such as to render him extremely cautious. He was of gentle temper and averse to contention; his policy was conservative in the settlement of dispute or difference.

Alban, being the eldest of his children, the trust reposed in him was such that their relations were more like those of brothers than of father and son. The boy revered and admired the man, and learned from him the invaluable lessons of self-government, temperance, and the policy of pacification; and he was wise enough to take them to heart and profit by them. But in certain essential characteristics the son differed from the father. The temperament of the father was restful and conservative, of the son nervous and aggressive. Thoroughly vitalized in body and mind, his energies focused to the point of conflagration, the force that distinguished him was of the kind that is bold, looking less at intervening obstacles than to the purpose beyond them. His high strung nervous organization he inherited from his mother, whom he resembled strikingly in physique, and even more strikingly in mental attributes. Her family name appears among those who composed the officers of the first organization of Charlton, the town

in which she was born, and, for a considerable period was extensively known in its history for enterprise and skill in business affairs. Her grandfather, Major Moses Dresser, was an officer of distinction in the war of the revolution. To her eldest son she transmitted her energy, her will force, and her progressive temper. She was not ambitious in the ordinary sense of the word, that is, possessed of an inordinate craving for superiority over others, but, thoroughly vitalized in all her nature, she was impelled by an inward principle to strive for the greatest excellence of which she was capable. Her whole care was the welfare of her family. Her resoluteness in doing what she was convinced was right, regardless of the opinions of others to the contrary, and her sound judgment combined with other sterling traits to make an exceptionally strong individuality. Deriving from her his laudable aspirations, to her training and influence was largely due the formation of his character. The sphere in which she lived was limited, but her capabilities were such that she could have adapted herself to any position that a wife or mother may be called from humble surroundings to occupy in the highest society of our nation. Her responsibilities were great, as it was, and she did her whole duty; nothing better can be said of any woman. Nor were her labors fruitless. Her children rise up to call her blessed. Her virtues and her undeveloped talents reproduced and brought into exercise by them are a perpetual memorial in her honor, for her spirit will live in them and in their children's children.

Alban, who resembled her more closely than any other of her sons, owed to her chiefly the traits that distinguished him and enabled him to earn an eminent place among men. Her sense of duty to her husband and children was her paramount consideration. Conscious from early childhood of the value and necessity of labor in a woman's sphere, she was always employed in some useful work. She impressed upon

her children the importance and dignity of labor, and she used often to say, that idleness bears no fruit, while labor carries with it the assurance of safety and happy results. The household work she herself performed, the daughters helping as they became old enough. She was supreme in the discipline of her household, governing, however, with reason and love. The virtues which were exemplified in her life, and made her presence and example felt and remembered, were reflected in her handsome, cheerful face. Her large, lustrous black eyes seemed, in their depths, an index to the generous impulses which inspired her in her domestic relations. In their little troubles the children all sought her for consolation and counsel; she heard them patiently always, and never sent them away without comfort. The greatest of all her trials, the death of her husband, came upon her when she was yet comparatively young, leaving her with nine children, the eldest less than twenty years old and the youngest an infant, with but slender means of support. She met the responsibility thus thrust upon her by this cruel bereavement with rare courage, and calmly set about in a practical way to make the best of the situation. Those of her children who were old enough to work, she placed where they could sustain themselves, and in their feeble way aid her toward the support of the younger ones. She remained single and devoted herself to her children, all of whom, except two daughters who died early, she had the satisfaction of seeing happily settled in life, the boys holding honorable and lucrative positions. She died July 16, 1870, in her sixtieth year.

Dresser Hill, situated on an eminence commanding an unbroken and picturesque view for miles around, was a village of farms. The country, spread out as far as the eye could reach in hills and valleys, cultivated to the highest point by the genius of necessity and thrift, offered always an agreeable view, while in the season of verdure the scene was enchanting. As

in the rest of New England, the winters were long and cold, leaving but a few months of spring and summer for farming. The atmosphere was stimulating, physically and mentally. There was nothing in the climate to enervate, but everything to season the body for endurance, while the demands and the promptings were all in the direction of labor. By the activity of Major Dresser, the Hill had become noted as a resort for military reviews for all the surrounding country. These gatherings were occasions for hearty greetings and merry making. Within a furlong of where A. N. Towne was born, lived a maternal great uncle, Harvey Dresser, who owned the largest and most fertile farm in the township, on which there was considerable activity. The spacious dwelling in which he resided comprised a hotel, a general store, a Masonic hall, where also local gatherings were held; there were his manufacturing establishments, in which, and on his farm, he employed a large number of men. He was engaged in the manufacture of stage coaches, then in great demand, wagons of all kinds, harness, and furniture. There Alban's father was for years employed as the head of the cabinet department. At Southbridge, three miles distant, his uncle Dresser owned and conducted a large cotton factory, employing many operatives. Mr Dresser was one of the most active and progressive men in Worcester county. On Sunday morning he would call out two or three four-horse coaches, driving one himself, for those who desired to attend church, which was three miles distant. His family often visited friends in Boston, Worcester, and Providence, but did not mingle to any great extent with the people of the neighborhood, most of whom were hard-working farmers and mechanics. The wages of working men at that time were low, and being compelled to the most rigid economy, they knew but little of social intercourse.

Alban's father was a poor man, but he maintained

a comfortable home, in which the necessaries of living were ample, but luxuries almost unknown. It was a nursery of self-denial and frugality, in which virtues are the seeds of wealth. The house in which he was born was a small building, with furnishings and appointments of the simplest nature; but it was a well-ordered, New England home, in which the parents were kind and the children tractable.

The boy's doing of chores began long before his childhood ended, but he was alert and predisposed to work. His earliest impulse was to be among the men in the shops; the workings of the machinery delighted him; any mechanical appliance interested him. This showed the trend of his thoughts, but he was to travel long and far away from his inclination; until he got back to it he would not be content.

His school days, begun when he was seven years old, were not long or certain. After he moved from his birthplace, he could attend only in the summer, as the nearest school-house was at a considerable distance; and when he was older and able to work, he could be spared only in the winter. His tuition, therefore, did not go beyond the rudiments. He might have learned more than he did, for he was apt in whatever interested him, but it is unlikely that his individuality was considered in the tuition he received; besides, his mind was not on books, and the lessons given him were not made attractive. His thoughts were on business, and he wanted to be actually at work, in which he was always happy. He was a natural easy worker. His knowledge was to be acquired in the school of practice, from which he could look back to discover that he was applying principles, self-taught, which make books. He educated himself in what his vocation required him to understand, and his mind being disciplined to reflection, which is the highest aim in the tuition of the schools, he acquired the ability to investigate. His reflections took form, in his later years, in substantial contributions to the literature of transportation. Self-

help, with observation and experience, will solve any practical problem, especially when the worker finds himself employed upon what his tastes lead him to and his faculties fit him for. With patience to labor and to wait, and a will that nothing short of annihilation can break, what mountain is there that cannot be removed! Young Towne threw his whole soul into whatever he undertook; the venture might fail, but he would not. As a lad he gave evidence of invincible spirit. He was bantered to jump a rail fence; other boys had made the effort and gave it up. He tried it, but fell and hurt himself badly; he was confined to the house for several days by the bruises he had received, but this did not deter him from a second attempt; he fell again and bruised himself worse than before. As soon as he was able to get out he made another trial, regardless of the admonitions of his mother, and by a supreme effort cleared the barrier.

His first ideas of the necessity to prepare for self-maintenance came when, in his eighteenth year, his father sent him to a neighboring town to learn the carpenter's trade. The almost universal custom in New England at that time of learning a trade, was among the customs which made the people of that section independent at home, and rendered them superior as pioneers and builders in the west. They knew, as a rule, one trade by apprenticeship, sometimes several, and could turn their hands readily to whatever was to be done. It was a matter of course, therefore, that Alban should go out at an early age to learn to make a living for himself. By applying himself to it one summer, he had learned the shoemaker's trade fairly well, and he was already familiar with his father's tools, but he did not lean very strongly toward the carpenter's bench, and he turned from it, with his father's consent. He preferred to go to Webster, an adjoining town, to live with his mother's brother, Horace Dresser, who conducted a large and profitable business, employing from sixty to seventy

painters during the spring, summer, and autumn months. He spent two years there, and learned the painter's trade. This was not what his ambition seemed to seek, but he persevered and mastered the business. Mrs Dresser was a woman of genial, sunny disposition, and fond of Alban and his parents, and those were bright and happy days which were passed in her household. During four months he went to school; the other eight months, he worked hard from early to late for eight dollars a month, receiving his yearly board, however, in addition. He worked shoulder to shoulder with his uncle's men, doing as much as any one of them, perhaps more, for he could not bear to be outdone; but he was a boy and a nephew, hence his pay was less. At the close of his apprenticeship, when nineteen years of age, his uncle's partner not being disposed to increase his compensation to what he thought was fair and right, the young painter opened up an active competition with them, and did a very satisfactory business. Though at first strong and hardy, working in paints impaired his health to such an extent that he was compelled to give it up. It annoyed him to have to do so, for though he was not content to be a painter, it was a blow to his pride to abandon anything he had undertaken; besides, he would have to find another means of support. He practised the closest economy. All the money he could save, which was but little, he gave to his mother, or invested for her and the children in wearing apparel, or other necessaries, whenever he could find a bargain; he was always on the lookout, and apt in discovering such opportunities. The meager assistance he could render them was possible because his own wants were few. Avoiding all extravagance, he could enjoy only the luxury of self-denial. The decease of his father, November 24, 1846, brought upon him a serious responsibility, but the evidence is that he recognized his duty as eldest son, and as far as he was able assumed the place of father to his

younger brothers and sisters. They looked up to him, all being guided largely by his counsel and advice, and his mother was comforted by his loyalty in her affliction.

While attending school, during his apprenticeship as painter, he met Caroline Amelia Mansfield, daughter of Asahel Mansfield, one of the pioneers of the town of Webster. Her mother, whose maiden name was Caroline Blodgett, like her father, was of early puritan stock. Her brothers were all powerful men, and staunch in their religion. The last of them to die was the Reverend Doctor Constantine Blodgett, who was for fifty years pastor of the same congregational church at Pawtucket, Rhode Island.

In his love-making the young painter was as persistent and strenuous as in all else, as the man who would eminently succeed must be, and Miss Mansfield became his wife. On retiring from painting he entered into business with his uncle in the sale of paints, oils, and drugs, and at the expiration of the time of copartnership, one year, he accepted for a twelve-month a position as clerk in a general dry goods and grocery store, at a salary of $275, at the end of which time he found that it had cost him $280 to live. This would not do; but first he must square his account, for he had an antipathy to debt. Looking around among his effects, he selected some stencil plates used in sign-painting, which he sold for five dollars, and thus made himself even on the year. Nevertheless, with such wages, it was not a bad showing. What young married couple, now-a-days, anywhere in the country, could think of keeping house on less than twenty-four dollars a month! The Townes did it, and they did not suffer; it was a principle with them to live within their means. Mrs Towne, in the good old New England fashion, had learned how to do every kind of household work, and instead of being ashamed of it, to feel an honest pride in her ability to do it. Those only who have been called on to economize

rigidly, and have taken a pride in doing so, for a worthy purpose, can realize what may be accomplished by saving, or the satisfaction resulting therefrom. Of course, that was the first year of marriage, some of the expenses of which had been anticipated and provided for in advance. It would be a good year to look back upon as a beginning; as a reminiscence only, however, would it be interesting. There must be something better for Mr Towne to do, and he would go and find it.

He went to Worcester, the county seat, sixteen miles distant, and obtained work in a paper-hanging establishment, where he acted as clerk, and in the season for it, went out and laid paper, the knack of which he had learned along with painting. It was not work that demanded a high degree of skill; but it was his ambition to do whatever he was engaged in to the best of his ability, and to improve it. He introduced new methods in the process, and did more and better work than his fellow laborers.

He was employed in this way, at a much better salary, for eighteen months, when he found an opportunity to go into partnership with O. F. Batchelor, at South Danvers, later called Peabody, in a miscellaneous merchandize business, the latter putting in capital, and the former labor and experience. Their trade was good and paid well, but hard times came in 1855. It was a period of general financial distress, and many wealthy firms went under. The Danvers firm felt the stringency, and this proved to be the turning point in the career of the junior partner. One day, after he had been in Danvers fifteen months, he announced to his wife that he had sold out of Batchelor and company; had taken out the largest part of his interest in goods that could be best spared from the stock without injury to the other partner, and the remainder in money—a small sum—and was going west. This meant to Illinois. To go so far—it was a great distance then—into a comparatively new region, seemed

to his friends a step in the dark, but he had made up his mind, and it was not in his nature to turn away from or to be argued out of, a deliberately formed plan. Previous to this he and his brother, L. W. Towne, had talked the matter over, and it was agreed that the latter should go forward and the former would follow in time. The financial stringency caused him to go earlier than he had intended. His brother, a locomotive engineer, had gone to work for the Chicago Burlington and Quincy railroad company, and a brother four years his senior, H. A. Towne, had followed him and taken the place of fireman on his engine. A. N. Towne's idea was to take his small stock of goods out west, and start again in the mercantile business. He spent several days in studying the business situation and prospects at Chicago, where he had intended to settle, but concluded to run down to Galesburg to visit his brothers, thinking there might be such a business opportunity there in the mercantile line as he would like. He did not find at Galesburg any encouragement in that line of business; and we find in his first letter to his wife from this place, the startling news that the assistant superintendent of the Chicago Burlington and Quincy who had taken a liking to his brothers had offered him a place on the road, "and" said he, "I may go to railroading." "Well" thought Mrs Towne, "railroading! what will it be next?" It seemed to her a revolution in their affairs, like beginning life all over again, and so it was, truly. It was a sudden and radical change of base, which, made by a man of ordinary spirit or caliber, would have indicated vacillation. Mr Towne had succeeded fairly well in business, all things considered, but what could he hope for in railroading? It was something he had never tried, and it would take a long time to learn it, and promotion was slow and uncertain. Was it possible that he could make his way up through an army of old and experienced men preceding him? So far, surely, it was a battle against odds; besides, only a

few bright men, strive as they may, reach the high official positions in railroading. The rest wear out their lives in subordinate service on small pay. But in every sphere of useful activity there is opportunity for conquest. Human life is a conflict, in which as a rule the fittest survive. But Mr Towne never pretended that he went to the brake foreseeing what it would lead to. He required immediate employment as the means of a livelihood, and his brothers were already on the road. This was the simple beginning.

I can readily picture to my mind merchant Towne at Galesburg, in the act of laying aside his good apparel, for he was always neat and genteel in his dress, for a suit in consonance with his new life. Twenty-six years of age, five feet seven inches tall, weighing say 155 pounds, symmetrically built, small hands and feet, dark complexion, his whole figure expressed nervous energy. There was life in every movement. His was not a tell-tale face, but beneath the smile that made his great black eyes luminous, there was an unobtrusive manifestation of pluck and will, such as exercised with unfaltering purpose by men otherwise strong furnish the surprises of history. Extra and regular brakeman, and extra and regular conductor on the freight train; extra and regular conductor on the passenger; yard and train master; assistant superintendent; general superintendent. Through all these grades in railroad operation he passed with remarkable rapidity; yet the swiftness of his rise was not for want of thoroughness: it was by virtue of the thoroughness with which he mastered the work in grade after grade. One man may focus more vitality upon his work in a day than others laboring by his side develop in many days. It is as though his spirit took form in his calling. From every engagement perfected he moved forward to another, projecting his energies with accumulated force upon problems evolved one out of the other, in the unfolding of whatever he undertook; so that

every day's work, completely finished and put behind him, was important not only of itself, but as another step toward the consummation of whatsoever he was capable. This is one way of putting it. Mr Towne modestly explained: "I did everything there was for me to do, just as well as I could." The sole means of his preferment was his industry and masterful spirit; his advancement was purely in recognition of his efficiency. He had no rich or influential friends to coach or even encourage him. He came into railroading a stranger, with no one to help him but himself. The friends he made, who were serviceable to him, were the outgrowth of the merit of his service, and his personal character; his holding of important positions was independent of all friendly feeling for him on the part of those in authority, except that he endeared himself to them in the manner intimated. Personal influence in this avocation, as in every other sphere of life, is often conspicuously more potent than efficiency, but in this instance the order of precedence was rational. The world is still deceived with ornament, as Shakespeare says; but the feature of Mr Towne's career was that his elevation was not due to the interposition of friends. It was earned against troubles such as a man must encounter who outstrips others in an open field in which competition is ceaseless. Jealousy, which is an infirmity inherent in small souls, and mars the nobility of some great minds as well, is said to be the cause of more strife and friction in the business of transportation than in almost any other. The most unreasonable and disagreeable feature of the opposition against which Mr Towne had to contend, at every step in his preferment, was this weakness, which may be fairly termed a vice among his competitors. But by going forward in the course which he believed to be right, he rose superior to all his jealous rivals. He dominated every place he filled because he made himself indispensable. To one who gives

up his life to special work what gratification is there more substantial! How different from unearned preferment, due to adventitious circumstances, favoritism, intrigue, or whatever other means than fitness, pure and simple! His friends in the service, apart from pleasant personal relations, were those who promoted his advancement because it was to their interest to do so. He did not scheme for preferment; and as is often the case with men engrossed in their work he was not a student of his own excellence; he did not place so great an estimate on himself as others who carefully observed his movements.

Henry Hitchcock, assistant superintendent at Galesburg, with whom Towne was directly related in his duties as a brakeman and conductor, regarded him as a desirable acquisition, and put him forward as fast as possible, because the usefulness of such men is greater in the wider sphere. Says an old railroad associate: "During Mr Towne's early connection with the Chicago Burlington and Quincy as a freight conductor, he was often placed in embarrassing positions by reason of limited means of communication with his superior officers. At that early period few trains were moved by telegraph, as at present. Several times when he had to encounter obstacles on the road, caused by high water, his and other trains being hemmed in by washouts, he developed extraordinary resources in overcoming these difficulties; he often relieved not only his own train, but the trains of the other conductors that followed his lead, and thereby saved his company from serious loss. Cases of which this was an example was what led to his promotion."

The general superintendent, also, kept him in view, as the following incident illustrates: One day, while in charge of the west-bound passenger train, at an intermediate station a telegram from Colonel Hammond was handed to him, ordering him to return immediately to Chicago. It was characteristic of him to obey. He did not ask what he was wanted for or

protest that he could not leave his train on the way and start back at once; but he arranged with the conductor of the inbound train to exchange with him, and though he had been up the previous night, he started back on an all-night run. Reaching Chicago early in the morning, worn out by loss of sleep, and not knowing what his sudden recall might portend, he reported at headquarters, where Colonel Hammond informed him in his gruff way, in a few words, that he wanted an assistant in charge of the train and station service. Towne protested that he had no experience except in running trains, and did not know what the duties of the office would be; but the superintendent had measured his man, and would listen to no doubts on his part. He went to work as trainmaster, and in a short time had straightened out the tangles in the rapidly growing transfer business between the Burlington and the connecting eastern lines, and was earning his salary many times over by stopping the losses caused by delays to traffic in transit. Another surprise awaited him next in the notification of his appointment as assistant superintendent, followed later by promotion to the rank of assistant general superintendent. Within eighteen months from the day he was set to braking on the top of a freight train, he outranked the man who gave him the position; with whom, nevertheless, his relations continued, up to the latter's death, to be of the most friendly and cordial nature. He was with the Chicago Burlington and Quincy eleven years, when he accepted the superintendency of the Chicago and Great Eastern railway company. He held this position for a year; but owing to the financial embarrassments of the road, which rendered the labor of management hopeless of the success that he required for his satisfaction, he returned to the Chicago Burlington and Quincy railroad, where he was welcomed again as assistant general superintendent. In the meanwhile, he had been the recipient of very tempting offers. Colonel

Hammond, who had now become general superintendent of the Union Pacific, urged him to come and aid him in the management of that road; but there were reasons why he preferred to retain his identification with the Chicago Burlington and Quincy.

At the end of another year, however, he was offered the general superintendency of the Central Pacific. Mr Huntington, the vice-president, who had also been the financial agent of the company in the east from the inception of the road, and exercised practically unrestricted authority for his associates and himself, was fond of telling how he secured the services of Mr Towne. Said he: "When our road was built, I began to look around for a superintendent to relieve Mr Crocker, whose whole time was occupied in matters pertaining to the construction of other roads. I inquired closely about a number of men who had a reputation for efficiency in railroading, and finally settled on a dozen, including Mr Towne, whom I carefully followed in all his movements for about a year. I finally concluded that I had found the man that we wanted, and wrote to Mr Towne to drop in and see me. A few days afterward he called on me at my office in New York. I told him that a superintendent was wanted for the Central Pacific railroad. He was then receiving $5,000 a year. He asked what salary the Central Pacific would pay.

I replied: "We will give you $5,000, Mr Towne."

"Well, I am getting that now."

"It is a big salary to speak of, Mr Towne, but suppose I should offer you something more, would you come?"

"I cannot go till I have seen my people and talked it over with them."

"Well, now, when you go home, talk to your people, and write me what you will come for."

"This Mr Towne promised; and when he was ready to go, I walked out with him. We stopped at Pine and Broome streets, as we talked, and I said:

'Now, I am going to get a man, and when you go back to Chicago will you talk the matter over with your principals, and write what you will come for?'"

"Yes, I will."

"We continued on across the river to the depot in Jersey city. I waited until the train was ready to start, when I again said: 'Now, I believe we understand it; when you get out there and talk with your people, you will telegraph what you will come for?'"

"Yes."

"Mr Towne talked with his employers, and told them he would have to telegraph something to me, and he mentioned $10,000 as the salary he would require, but they replied they would give him as much as that. He telegraphed that he would come for $13,000 in gold, then at a premium of over thirty per cent. My answer was, 'Come.' Since then, September 1869, Mr Towne has remained with us; the directors of three of the leading roads of the United States have made him flattering offers, but it would be difficult for them to get him, as I assume that he is as well satisfied with us as we with him. His present salary is large, as I presume everyone knows. We have found him to be all that was said to commend him to us. We feel implicit confidence in his management. The history of his identification with us will show that he has been appreciated."

To be thus sought out from among, and preferred above, all the distinguished railroad superintendents of the United States, was a testimonial to his mastery of the transportation problem most substantial. Born at the beginning of a new epoch in the history of the country's prosperity, it has been his fortune to live through a period marked by great events, and by material progress unexampled. As a factor in one of the principal agencies underlying this development, he passed, in his identification with the Chicago Burlington and Quincy railroad, nearly fourteen of the most active and impressionable years of his manhood, dur-

ing which period he enjoyed the acquaintance and profited by the society of the most distinguished men of the time, statesmen, manufacturers, merchants, and railroad men. Among the last named, with whom he was closely associated in the active management while identified with this great property, were John Van Nortwick, James F. Joy, J. M. Walker, C. G. Hammond, Robert Harris, Henry Hitchcock, and Amos T. Hall. To these able men and good friends particularly he feels indebted in a measure for his later success. He came into this new field in the far west ripe in years and rich in the practical knowledge of his work, and fortified for control by self-discipline. He had graduated from one of the greatest carrying lines of the northwest, in which, having made himself familiar with all the details of every department, he was master of the whole. There was not a man on the Pacific coast, nor, I may add, is there one now, better qualified, to organize and operate the first overland railroad; the school in which he was educated has ceased to exist. Such schooling as he had acquired was possible only when railroading was comparatively new, when a company's lines were few and short, and its operations were so limited that the workings of each department could be learned in one life time by practice. Such training now is out of the question. The most that can fairly be expected of a railroad man of the present, on the great lines, is that he shall thoroughly comprehend the details of a single department. In 1855, when Towne began railroading, and there were but 18,374 miles of road in the United States, the superintendent was the chief official; as the duties of getting and moving the traffic, looking after the machinery and rolling stock, track, bridges, and buildings, together with shaping the policy and commercial affairs of the road, all devolved upon him. Through the consolidation of the many small roads into the great carrying lines of the country, this has all been changed. The

controlling and directing spirit in the carrying out of the policy dictated by the president and board of directors is the general manager, who finds it necessary to create departmental duties, assigning to each department a chief distinguished in his special branch of study or labor. Mr Towne having served continuously from the age of twenty-six, became expert in the details of the several departments, and was recognized in his profession as one of the old school of thoroughly educated railroad men, and in later years was one of the few surviving representatives of this régime.

The construction of the first great transcontinental line of road through a country with doubtful resources, and over mountain ranges of so formidable an aspect, required courage, enterprise, and financial ability; and to successfully and profitably manage and operate such a road when completed, required a man of more than ordinary capacity; one of the first in all that goes to make a thoroughly trained business man; one who not only understood but was familiar with the laws of trade and commerce as affecting the procurement and the movement of traffic.

The Sacramento syndicate, deep, broad men, unquestionably the greatest and most successful road builders the world has ever known, were engrossed, each in his own sphere, in the extension of their system by the construction of additional roads; so that no one of them could be drawn from his department to operate the Central Pacific and its branches without impairing the completeness and diminishing the force of the original association—a combination unsurpassed in its efficiency as a whole by reason of the peculiar talent and adaptability of each of its members for the performance of his individual functions.

Mr Towne arrived in Sacramento at a period in the history of the Central Pacific, when it offered a great open field for trained men of talent. The

people of California who came into the country by teams or by steamers, and whose freight was transported through the same channels, knew little beyond ocean and inland water carriage, and mule trains for packing over the mountains. Isolated by geographical position, they were unfamiliar with the more modern rail transportation agencies. And they did not have an opportunity to learn and take advantage of the improved railway service growing out of competition between many lines struggling for the greatest share of that which goes to make the business of rail transportation a success. When he reached this coast he found himself thrown among men of power, influence, and wealth, but whose tendencies were naturally provincial, as they had not had the opportunity to see what others were doing whose existence in the business of railroading depended upon their ability to get traffic and make it profitable. Naturally, there were jealousies and enmities engendered among the minor officials under his direction, working hand in hand against him, to thwart the efforts of the stranger coming among them from a remote section of the country, whose sole endeavors, nevertheless, were to introduce in the immature service, promising innovations which his former experience had taught him would greatly better the condition of things. A relentless opposition followed, and his life was threatened repeatedly by his foes, as his strict discipline and the requirements of his methods were not to their liking, until finally some of the more formidable of his opponents were summarily dismissed from the service. Being of a cautious and secretive disposition, he kept his own counsel, preserved a complete insight into the immense business of the company, and by following out a line of policy, strictly in accordance with his early teaching, he succeeded in overcoming the many barriers born of ignorance, bigotry, and prejudice, which his antagonists never lost an opportunity to place in his path. His success in these matters

greatly strengthened the faith the owners had placed in him; and his friends have often stated that there was no man in the country who could have passed through what he did, and accomplished so much in the face of such organized and determined opposition.

Matthew Hale Smith, in his book, entitled *Successful Folks*, in which he presents the biographies of distinguished business men of the United States, refers as follows to the beginning of Mr Towne's career on the Pacific coast. "The employés were more amused than startled at the advent of the new superintendent, a quiet, pleasant, gentlemanly spoken man. The executive ability for which Mr Towne had become celebrated began to work. There was no noise, no bluster, no threats. Turbulent and unruly men somehow slipped out and loyal men came in. The government was out of sight. The road assumed a movement not unlike that of a well-oiled locomotive." From the date of his inauguration, when the company's system was small compared with what it is now, being then less than twelve hundred miles in extent, he was the working head in its management. Until 1882 his title was general superintendent. About that time the Southern and Central Pacific companies having become united under one system, the office of general manager was created for him with enlarged powers, after which, with the added authority and responsibilities, first of third and then of second, vice-presidency. From the start he was an essential part of the institution in its outward and physical, and in its inner and intellectual existence. It was important, coming as he did into a new field of railroading, where the men who had constructed and now controlled the road, desired his operating experience, that he should possess a knowledge of mechanism and a familiarity with the construction and repairs of rolling stock, and that he should suggest and introduce improvements in all branches of the service; but this is only one item

of the many ordinary requirements to which he had to respond.

In order to protect the interests and rights of those whose property was entrusted to his management, he must have a thorough knowledge of men, so as to be able to select efficient and reliable assistants as heads of the various departments, who are in constant communication with him on questions of complicated detail and matters of concern transpiring at all times over the entire system under his charge. He must exploit every avenue of earning, and know the cost of operating, so as to secure the maximum revenue at the minimum of expense; he must be familiar with the wants of the trade of all sections of the country through which his lines run, and secure all possible traffic; he must encourage and develop business, regulate rates, provide means of transportation at all times, and direct in making and changing schedules: his judgment must be exercised to decide, as it becomes necessary, as to additional stations, tracks, buildings, rolling and floating stock, and repairs of the same; he must inspect and pass upon important vouchers, examine reports, and inquire into the causes of accidents involving loss of life or damage to persons or property, and fairly and intelligently, and sometimes summarily, dispose of such cases; he must give attention to the complaints of the patrons of the lines, and listen patiently to many senseless murmurs and demands; he is compelled to dispose of all those who press their claims for favors to the exclusion of others; he has also to meet deputations of merchants, farmers, mechanics, and others, and consider their propositions, which are often of a nature demanding privileges and concessions that are inconsistent with the policy of the company and the laws of equity. He has weighty matters to lay before, and sometimes to urge with, the president or board of directors, with whom he is in daily and hourly communication. How economical of his time must he be when every minute counts, and yet he must

be ready at every call! He must understand railroad law, the statutes affecting railroads, contracts, etc. His judgment must enter into every matter in which the interest of the road is involved, directly or indirectly. He stands as its advocate and its defender against all that host from the outside world, composed mainly of ingenious and pushing tradesmen, who carry on a perpetual and determined campaign for the procurement of inequitable concessions, to whom a slight reduction in rates is often of sufficient importance to impel them to make a life and death struggle to secure it, however injurious to their competitors in business or impracticable it may be for the railroad to concede to their demands or yield to their importunities. Such concessions as the road is enabled to make to all without distinction, from time to time in consonance with the requirements of its policy, from a business point of view, they never appreciate fully, if at all, and they cry unceasingly for more. The performance of these functions is in brief a summary of the railroad manager's office, but the man must be merged into the functionary. His personality must give character to his office; there is scarcely a duty devolving upon him that is altogether perfunctory. The greatest power being the result of the least resistance, friction in his management must be kept at the minimum. He must be self-governed in order to govern others; he must withal be a philosopher and a diplomat, holding sway by moral force.

Transportation is one of the most intricate studies of the age, differing from all others in this, that it involves more that directly concerns mankind, and becomes continuously more complex along with the civilization it promotes. Unlike the study of law, medicine, or theology, it is not a profession to be practised within the limits of precedents established. The managers of the great carrying lines must be governed entirely by the exigences of each particular

case, calling for the exercise of independent judgment, in order that they may promote the development of outlying places by the extension of lines of road, and that they may meet the ever-changing conditions of trade and commerce incident to railroad and ocean competition in traffic to and from the markets of the world. Thus, it may be said, is the character of the transportation organism indexed, its necessities and powers as a business institution reflected. As such merely, its structure and functions cannot be appreciated or understood without serious and careful study. The skill brought to bear in devising the economics of its internal machinery and of the outward distribution of its force, its genius, exhibited in the control and creation of values, makes it royal among the instrumentalities of commerce and civilization. This is patent to every thoughtful student of industrial history; and yet the railroad which is not considered in its sociological aspect is not understood. It is a most human institution. At every point it acts and is acted upon by the community. The very reason and object of its existence brings it into the most sensitive relations with the public. For its own protection it is at times forced into legislation, law, politics, and society, and therefore becomes a potent factor in them all. In the sphere in which it is legitimately occupied it dominates, and has to dominate in order to advance.

As every man who, having God-given talents, strives rightfully to multiply them, must put forth much of his energy in jostling, because he is jostled, so it is with the railroad. It is not an aggressive institution, though in the process of its expansion as a factor in the general development of the community it may appear to ill-informed or narrow minds in this light. The sentiment manufactured against it by interested persons who influence public opinion, is such that it has become difficult for the people to believe that there is anything good in a railroad. It has been so constantly

held up to popular prepossession as a grasping monopoly, a soulless Shylock, that its enterprise is contorted into aggression, its progress into trespass. Now, putting aside all consideration of the railway as a potent agency in the advancement of the substantial interests of community, contributing to its wealth and giving the means of livelihood to more families than any other; putting out of mind all that it contributes to the comfort and happiness of the whole country, let us without bias ask ourselves why a railroad should be so characterized? Is there any reason why it should be execrated? If its managers are wise will they pursue a policy that is inimical to their patrons? Railroad men have never been charged with lack of shrewdness. They are among our keenest and most progressive citizens. This being conceded, as it must be, and it being conceded also, as is unavoidable, that a railroad depends upon public patronage, at what conclusion do we arrive? *A priori*, that most of this clamor against railroads is false and irrational, which conclusion is confirmed by the general history of transportation. The record shows that from the outset railroad men have appreciated and acted upon the principle that their interests and those of the people are identical. Of all business institutions it is the most sensitive to public opinion. The value of its investments is greater or less in the ratio in which it renders satisfactory service to, and is able to command the confidence and good will of, the public, its patrons. I once heard an eminent railroad man remark in all earnestness: "Why, you have no idea with what sensitiveness and delicacy a railroad guards its attitude toward the community. Scold the bootblack who is polishing your boots, if you please, and he will smile, for he must have your patronage. It is his living, sir, and as it is with him, so it is with the railroads." The Southern Pacific has seldom instituted a law suit against any one, but in the course of many years it has had to defend itself against thou-

sands of suits! How many of these were just, may be inferred from the fact that the road feels that as a corporation it is always at a disadvantage in the courts of justice, and would rather settle any proper claims against it without recourse to law; though naturally being once forced into litigation, it will carry the fight to the end in order to maintain its rights. How many of them are instituted on insufficient grounds and for purposes of extortion or blackmail, may also be conjectured when we consider the well-known advantage that plaintiffs enjoy in litigation with a defendant whom the jury, and too often the court, may be predisposed to decide against. The greatest solicitude of the railroad is therefore to avoid litigation. Its ingenuity is taxed to the utmost in order that the possibility of law-suits may be obviated. I once heard a jurist, skilled in the law affecting railroads, and familiar also with the system of railway transportation, say, that a railroad can rarely ever be justly and fairly sued, for the reason that the best energies and vigilance of the management are in constant exercise that there may be no occasion for litigation; and further that the only reason why a railroad is not practically perfect in all its operations is because of the unforeseen and inevitable defects of material and the fallibility of man. A railroad is not independent nor its officials arrogant, as is often flippantly remarked. Some railroad men may carry themselves haughtily, but their roads must be to a degree subservient, and to the utmost accommodating. Nor do I believe it true that the millionaire railway proprietors or their managers are more arrogant than others of similar power and control. I should rather expect to find them less so, for the reason that the business in which their wealth is invested is essentially conciliatory. Then again, how many persons realize what a trying ordeal railroad officials or employés are subjected to, who come directly into contact with the public? Those who

travel by rail for pleasure are small in number as compared with those who travel because they cannot help it; many of them are irritated or in trouble to start with, and all through their journey are in a hurry. Here again comes jostling of a trying character. It might be supposed that transportation agents thus constantly wrought upon would sooner or later become demoralized; on the contrary, the man is exceptional in railway service who is not patient and self-contained. The manager's care and vigilance are in ceaseless exercise in order that discipline at this point shall be maintained.

Under the most energetic administration the Southern Pacific company's gross earnings have reached $50,000,000 per annum, an amount barely enough under the most economical management to meet the operating expenses and fixed charges, leaving little or nothing to the shareholders. This alone ought to convince any fair-minded person that it places no unfair burdens upon its patrons; nevertheless, it is often forced into warfare for defence against out-spoken adversaries or scheming combinations. In this as well as in the struggle with the elements of material nature and hostile trade arrayed against his company, the general manager is ever ready in council, and prompt in helping to provide such means of repelling aggression as the policy of safety may require.

The world is as we find it, not as we wish it, and men must be judged in ethics largely from their own point of view, and according to their surroundings. Self-preservation is the first law of nature, the force of which law, in an artificial state of society, is rather confirmed than impaired; if it were not so, legitimacy would have to succumb to illegitimacy. If by Adam all men were made sinners, it follows that the railroad, unregenerated, is not without its demon, and that when it comes to a struggle with those who use fire, it may have no choice of weapons. The road, like all

other roads, and all men, has an unwritten history which will never be recorded, as all who are familiar with the actual, and not sentimental, humanity of affairs will readily recognize as inevitable. There are those who have maintained conspicuous and trying relations, such as these, but have so framed their conduct as to avoid reproach. Perhaps no one so delicately situated as was the general manager of the Southern Pacific company ever sustained less damage to his reputation among the people. While others of great prominence were often criticized for their antagonisms growing out of their relations with the public, sometimes made notorious by the press, with or without justification, his name was never coupled with hurtful charges. That the estimate in which he is held is just appears in this, that so shining a mark could not escape were he amenable to assault.

It is a proud and significant attitude for a man to occupy for so many years, preserving the autonomy of the vast interests intrusted to him and his own reputation intact. The experience of such men is the only source of real knowledge regarding institutions, enterprises, industries, professions; all other information is statistical and spiritless. Their thoughts and work, garnered up and preserved during the generations, constitute the sum of what is known and practised, the wisdom of the past upon which to build for the future. The actual history of transportation as we understand it to-day, has grown up entirely within two generations; hence it is largely made up from the lives of such factors in it as that of Mr Towne. All that is of vital consequence in the annals of practical railroading is an extract from their lives. Learning from those who precede them, they in turn contribute their originality to promote the development and efficiency of their calling; not infrequently they contribute directly, as is true in the case of Mr Towne, to the current literature of their profession.

It would be better for all concerned, those who have their investments in transportation enterprises as well as the public at large, if the railroad problem were better understood. It is one of the most difficult questions of the age to comprehend. Railroad men are not always indisposed to put the community at a disadvantage by means of their superior technical knowledge, while the community is often led to be unjust to the roads through sheer prejudice and ignorance. With this phase of popular aggression Mr Towne is thoroughly familiar. When assistant general superintendent of the Chicago Burlington and Quincy railroad, he was summoned as an expert witness before the first legislative committee ever appointed in Illinois for the purpose of inquiring into the question of governmental regulation of railroads, to give testimony in relation thereto; and as this question was kept constantly before the public, he devoted more or less of his time in appearing before legislative committees, and in preparing arguments in defense of vested rights and against the communistic tendencies of the times, that spirit born of idleness and vice which is not only at war with every privilege that accompanies wealth, but which is irreconcilable even with an honest struggle for bare maintenance. He is a believer in the theory that the unwritten or moral law protecting property rights stands on higher moral ground than even that guaranteed by the constitution as often interpreted by the courts, which law, as he says, being frequently endangered, requires unremitting care and vigilance to preserve it in its integrity.

In a letter suggested by an article in the *Forum* of May 1888, in which he discussed the question of governmental control and interference endangering railroad property, Mr Towne says, "The railroad problem has engrossed the attention of the wisest men of our generation; it has taxed the energy of the law-makers of the various states and the nation

to devise a scheme whereby the roads of the country shall be controlled and operated under some law other than that which governs trade and commerce. Until this sophistry is abandoned, no good will result to the roads or their patrons. The great trouble dates back to the well-known granger legislation. The legislature of Illinois passed acts in its efforts not only to control the rates that should be charged by the various railroads, but also to regulate and fix the compensation that should be received by the warehouse people for elevating and storing grain; thereby depriving not only the roads but the owners of the elevators of all that is desirable or available in the title or possession of property.

"From that time forth there seemed to be no barrier to the reckless exercise of self-will, passion, prejudice, lust, or desire for power to regulate, on the part of either the legislative or judicial departments of the states. And what was still worse, when cases were taken to the high court at Washington, the lower courts were sustained, seemingly not so much in consequence of reverential regard for constitutional principles as because of the influence of popular clamor, at that time running high.

"Following this came the Thurman bill, so called, so greatly affecting the interests I represent, which was on the part of congress a gross and unwarranted assumption of power, vitiating contracts in open violation of the constitution. The principles involved in this and the granger cases, if applied to any other business or industry than ours, would have offered sufficient ground, even in our republican government, for anarchy and revolution; and the writer believes these laws have had more than anything else to do with the creation and the encouragement of the restless spirit of communism among the great majority with us, which is always too ready to assert itself in antagonism to vested rights, when sustained by the least possible legislative or judicial endorsement.

"The doctrine of governmental control, as then understood, having such general recognition, has had its run throughout all the various legislatures of the states, and in congress; and from which much harm resulted to the roads, and to the people as well, especially to those of Iowa, Wisconsin, and other northwestern states.

"The war cry of monopoly raised against the roads had its effect upon the people; yet a moment's reflection would have taught them that a railroad did not have exclusive command or possession of the article of its dealings, to wit, transportation.

"Open navigation on the one hand, and competing lines on the other, built in season and out, hedge a railroad all around with competition.

"There was a time, not remote, when the raisers of sheep, cattle, and swine prepared the same for the market; now the butcher and the packer handle and monopolize these great food staples. The canneries of the country monopolize the trade; and so does the great oil monopoly, not to advance the price of the oils, but to supply us so well as to drive out all competition by furnishing superior articles at reduced prices. Go through the whole schedule of manufactories; like the railroads, they, too, may be called monopolies, in the distorted sense in which this term is employed, and be alike regulated and controlled. But the serious question is whether it is right and proper that the majority, without interest or ownership, shall control and enjoy the fruits and the labors of others who have cheapened the necessaries and the luxuries of life.

"The gross earnings of all the railroads of the United States, those so-called monopolies, for 1887, according to *Poor's Manual*, was $931,385,154, which if our population were 65,000,000, was a charge of $14.33 per capita. The amount of money paid out to manufacturers and vendors of intoxicating liquor was not less in comparison for all the benefits

conferred upon the people by the roads would seem almost infinitesimal. Yet the vendors of liquor escape the epithet monopoly which is offensively saddled upon the railroads. Our answer to the oft repeated assertion that the roads do not give value received, is well illustrated and proven by the fact that the New York Central and Hudson River road, running parallel and in competition with the Erie canal, in 1855, carried 114,827,762 tons of freight one mile, earning per ton per mile 3.27 cents, not then considered too much; and in the year 1887 the same road carried 2,704,732,176 tons of freight one mile, earning but .78 cents per ton per mile, and at this time below even this figure, which is now complained of as unreasonable. The history of the roads of the United States, where rates are far below those of European roads, is much the same. The rates charged are barely sufficient to meet the requirements of the roads; in too many cases in this country they fall much below."

In referring to hurtful legislation against the railroads, and especially to the demand of the commissioners under the interstate commerce law, that is, for a general classification of freights, which is a regulation of rates, Mr Towne writes: "The law has caused a world of trouble, and will likely prove disastrous in many cases, because it is impracticable and unjust, not only to the carriers but to their patrons. Some roads endeavoring to work under it have already become nearly bankrupt. The traffic men of the great lines, in general conference, have given the subject of general classification demanded by the commissioners much thought. For more than a year, at intervals, have these men been in conference meetings held in eastern cities, which have resulted in failure to reach a satisfactory conclusion. The country is too large, the topography too varied, the resources too far extended, the conditions of trade and commerce too complex, and the railroad interests gener-

ally too greatly diversified to justly and impartially measure them by the two-cent postage stamp principle, upon which, we are of the impression, the commissioners' idea of a uniform classification may be based. True, two cents for carrying a letter several blocks in a city, and the same price for carrying it three thousand miles, then delivering it, free, many blocks distant from the post office, is a convenience to the public; but there is no business principle in this, because it is done without just remuneration for the service performed, as a single illustration will show. The government, after dictating its own terms to the railways for carriage of the mails, which is done on fast express trains, and in many cases at less prices than is received for the carrying of freight, shows for the years 1885, 1886, and 1887, a deficiency in carrying of the mails of nearly $20,000,000, a loss to the nation which is made good by general taxation.

"No doubt there is one classification that would be satisfactory to the commissioners, and to the public as well; it is that of the trunk lines from the great lakes to the Atlantic seaboard. To accept this classification of rates, however, would not yield the far western lines, running through unsettled portions of the country, enough to meet their obligations; to accept the classification necessary for the existence of the western lines would yield too bountifully for the trunk lines, more than they really need, and more than the people along the lines who are more favorably situated should pay: hence uniformity in classification is impracticable.

"What safety is there with the rate-making power in the hands of men who have no interest in the property, and who have little appreciation or understanding of the circumstances and conditions surrounding the roads and their business, which must of necessity govern the managers in determining what is just and proper remuneration for the service performed?

"The commissioners do not seem to take into consideration any of the items of cost of carriage of one road as compared with another. For the sake of illustration: The tons carried one mile on the New York Lake Erie and Western railway for 1886 were equal to 270 per cent of the tons carried for 1887 on the Southern Pacific company's lines. The Pennsylvania united railways of New Jersey, and the Pennsylvania and Erie division of the Pennsylvania for 1886, carried equal to 422 per cent of the tonnage of the Southern Pacific company for 1887. The Lake Shore and Michigan Southern for 1886 carried equal to 149 per cent of the Southern Pacific tonnage for 1887, and the New York Central and Hudson River lines for the same year, 1887, was equal to 253 per cent of that carried by the Southern Pacific.

"Labor, and materials of all kinds, such as ties, lumber, iron, steel, coal for the foundries and blacksmith shops, and everything else we require, cost very much more than in the east, but the most important item entering into this comparison, in the cost of operating, is that of fuel. Per train mile I find it costs but 5.24 cents on the New York Central; 4.20 cents on the New York Lake Erie and Western, and 4.05 cents on the Lake Shore and Michigan Southern; the Pennsylvania I think is below either of the others, while with the Southern Pacific, which has no coal on its entire route, the cost for the year 1887 (and it is much more this year) was 21.58 cents per mile run. Our fuel alone costs in some cases over 500 per cent more than it does on the eastern roads. But the most remarkable showing is that the Southern Pacific company's fuel expense of 21.58 cents per mile is 36 per cent greater than that of the New York Central, seven per cent greater than the New York Lake Erie and Western, and 32 per cent greater than the Lake Shore and Michigan Southern's entire locomotive expense, including all expenses of every kind and nature. Furthermore, the long heavy grades which the

Southern Pacific trains have to climb in order to get from the great basin of California over the three several crossings of the Sierra Nevada, make the cost 700 per cent more for train service than on the comparatively level roads taken for the purpose of comparison; and yet the commissioners would if possible compel the railroads to accept a uniform classification."

In answer to that part of the *Forum's* article advocating governmental control of railroads through expert commissioners, he says: "Consolidation is practicable, possible, and very desirable for the people and the properties, but I do not believe in the practicability of governmental control; if, however, this is to be, and there are to be railroad experts as suggested by the *Forum*, let a few, not to exceed five, practical men, I should say (as a greater number would be nothing more or less than a town meeting), be selected to execute the laws which shall be consistent with the requirements of the people and the necessities of the roads. It would perhaps be possible for this national commission to fairly divide the competitive traffic and confirm the rates made from time to time by the railroad managers independent of state interference, which rates should be only as high, so nearly as they can determine in advance, as necessary to meet all the requirements, such as fixed charges and operating expenses, plus a fair dividend on the capital stock. Should there be a surplus over and above the requirements, let it be applied to betterments and additions to the property, which would benefit the people; and should there still be a surplus, then let the national commissioners divide it among the various states, in the proportion as the states may be entitled to it according to the earnings of the lines within their borders.

"All this might tend to purify the atmosphere in our legislative halls, and the prediction be verified that the value of all railroad securities would meet a

material advance in all the markets of the world. This would be a consolidation of interest, pure and simple, brought about by the people and for the people, in which he who owns and he who enjoys the benefits would be, so to speak, joint partners; but government ownership and management, with such an enormous party patronage, and greatly in excess of the present cost of service would not be tolerated by the people."

Further, regarding the efforts to regulate railroads through commissions, in December 19, 1888, Mr Towne addressed a letter to the board of state railroad commissioners of California, in which he presented a convincing argument against the adoption of the so-called western classification, then being strongly urged by the commissioners. After offering a logical array of figures in justification of his position, he concluded his letter in the following general terms: "From the beginning and everywhere, the railroads have been civilizers and distributors of the nation's wealth. They are among, if not the most potent of all agencies in the transformation of outlying, worthless, and uninhabitable regions into empires of population and wealth. They are constantly cheapening their charges for the carriage of persons and property.

"Narrow-minded men say that the railroads are reaching out to control arbitrarily the cost of the necessaries of life; they fear that our republican institutions will suffer under the present system of tolerating what they term unequal opportunities. Reflection will convince any fair-minded man that it is these unequal opportunities which make possible the feeding of the hungry millions of Europe from the grain and livestock farms of America. We are told of the decay of agriculture in New England; this is evident; but the low rates the railroads have quoted make possible the profitable cultivation of the lands of the great west, and at the same time give to the New England consumers their food supplied

from farms 2,000 miles away cheaper than they can produce them at home; while, also, other compensating industries are developed among them in which they are profitably occupied. In the progress of transportation, distance becomes less and less an obstacle. Wheat has been taken by rail and ocean from the farms in California to Liverpool at a rate which adds but 2.12 mills to the price of a family loaf of bread, weighing one-half pound: and, on wheat in large quantities, rates from Minnesota to Liverpool have been so low, at times, as to increase the cost of the same loaf but .73 of a mill."

The testimony of Mr Towne, June 20, 1889, before the United States senate committee on our relations with Canada generally, with some supplementary remarks on the fourth and fifth sections of the interstate commerce law, was the most extensive paper from his pen that found its way into print, though on all the points of importance in the economy of transportation his correspondence has been voluminous and continuous from the beginning to the end of his railroad management. By painstaking research he arrived at facts making evident the inroads of the Canadian Pacific railroad upon the commerce and transportation industry of the United States generally, and especially the lines of the Southern Pacific company, whose territory is the most susceptible to such aggression; and then by a masterly process of analysis made the cause of the wrong manifest and pointed out the remedy. I quote from this part of the document a few paragraphs that are freighted with thought and information. In referring to the peculiar and extraordinary advantages of the Canadian Pacific which are not enjoyed by American roads, he said: "I understand the Dominion government has granted the Canadian Pacific railway a subsidy or bonus of $25,000,000; has donated to it 25,000,000 acres of land, embracing only such as are suitable for settlement; has also given right of way, station

grounds, dock privileges, and water frontage, in so far as within the control of the government; and, further, has constructed and transferred to the Canadian Pacific railway company, free of cost, 714 miles of railway, the estimated value of which, according to that railway company's report for the year 1887 is $35,000,000. The Canadian Pacific was permitted to import steel rails free of duty, also other material used in the construction of its road and telegraph line. Under its charter, the Canadian Pacific is freed for all time from taxation by the Dominion government, or by any provincial government established after date of its charter. Its land grant in the northwest territory is free from taxation for twenty years unless sold in the meantime. In addition to all this the Canadian government has bound itself not to permit, during the term of twenty years, the building of any line or lines that would parallel the Canadian Pacific railway. It is a privileged competitor against the carriers of the United States; and the reasons for this are many and exceptional. Among these, it has lower fixed charges than any other system of roads on the American continent. It also has cheap labor and material for its construction, repairs, and maintenance expenses. It has, accessible to a large portion of its lines, extensive fields of coal of the finest quality, and in exhaustless quantity. Being practically exempt from our laws, it can dictate the rates and most successfully compete for the transcontinental traffic, taking the same at less rates than the United States roads can afford to accept; taking it, too, without depleting the revenue natural to and necessary for its local traffic. The United States roads, on the other hand, are tied up under restrictive provisions, and are compelled to make large sacrifices of their local earnings if they would compete with the foreign lines for the through traffic. The damage already done to American transportation interests by Canadian carriers is sufficiently serious in itself, but it is trifling in comparison with

the damage likely to be inflicted by our Canadian competitor in the future, because of the peculiar position they occupy as against American carriers. It would not be unnatural if, emboldened by their past success in procuring that which the American lines have built up and heretofore held, they should become more aggresssive, seeing that they command the valuable local traffic of a vast domain, the earnings from which are absolutely unaffected by any rates, however low they choose to make them, to secure American tonnage. The most subtile instance of England's movements for the maintenance of commercial supremacy, the invasion of American commerce, and the absorption of the benefits of American prosperity, is found in the Canadian Pacific railway and its steamship lines. This is a curious feature of protection which has not yet attracted the attention it merits. That is to say, the American roads need protection against foreign aggression. While all our other domestic industries that require it are protected, the wage-earner in our railroad service, the shareholders and purchasers of railroad securities, are not only not protected, but deprived by restrictive legislation of the ability to protect themselves.

"The magnitude of the railroad interest, ordinarily so imperfectly understood, is admirably brought out by Poor, the highest authority in such matters, who made the following calculations for 1888: "In point of importance the railroad interest now takes precedence of all other industries or enterprises. Its magnitude is greater than any other interest in the world, and it has become so thoroughly a part of the economic system of the republic as to be second only to the government itself.

"In order to show how closely interwoven are the interests of railroad stockholders and the working classes of the country, a few calculations are herewith submitted: If we estimate that in the operation of our railways there are employed in prosperous times

an average of six persons per mile of road, it would show a total, on the basis of our present mileage, of more than 936,000 persons regularly employed in connection with that single interest; and if to this number we add 780,000 — a number representing an average of five to the mile — as the number of persons employed in connection with all those industries which are directly affiliated with and dependent on our railway system, such as locomotive and car-building establishments, rail mills, etc., we have a total of nearly 1,716,000 persons, or an average of eleven to the mile of railroad. Assuming that each of these would represent a family averaging five persons, we have an aggregate population of 8,580,000 — nearly one-seventh of the total for the country at large — of which 90 per cent are actually dependent on the railway system for the sustenance of life. If we allow, as the average rate of wages of those employed in operating, say $450 per annum, and for those employed in locomotive building, etc., say $500 per annum, we have a total pay roll of $911,200,000 per annum, of which at least $500,000,000 is directly chargeable to operating account, while the remainder is for account of betterments, improvements, and new construction. Add to this the amount paid to laborers engaged in construction in such a year as 1887. In that year there were built new roads whose aggregate length was 12,984 miles. If we take, as the average cost of labor in grading, track-laying, etc., for each mile of this total, say $10,000, and allow the average daily wages of laborers to be $1.50, with, say 100 laborers of all classes to each mile, this would show the average time for the completion of a mile of railroad to be sixty-seven days. On this basis the construction of 12,984 miles of railroad would give steady employment for 300 days in the year to an army of 289,976 laborers, whose total earnings would be $129,840,000.

"This gives a total of 2,006,000 persons, to which we will add 44,000 as the number whose labors are

stimulated by the employment of the 289,976 last mentioned, making a total of 2,050,000, representing families numbering in the aggregate 12,250.000 persons. To maintain this number there would be expended by railroad and others under the above calculations at least $1.040,000,000 per annum, or very nearly $3,000,000 for each day in the year. The regular expenditure of more than 90 per cent of this vast sum stimulates other industries, and in this manner the volume of general business is increased in progressive ratio.

"In these calculations no account has been taken of the large number of people forming the proprietary interest of this vast aggregation of capital, which comprises people in all classes and in all occupations, and scattered throughout all parts of the country.

"The New York Central railroad company has 10,000 stockholders, whose average holding is about $9,000. If we take that sum as representing the average holding of all stock and bondholders in the country, the total number of such would be over 1,000,000, representing more than 5,000,000 persons with important interests in the success of the railroad system.

"From these deductions a general idea can be gathered of the magnitude of the railroad interest, and how vast and widespread is the interest of our people in that system."

"According to the accepted method employed by the authority quoted above, with regard to railroading in the United States at large, if only a few leading facts concerning the property of the Southern Pacific railroad be taken as a basis from which to generalize, we may form an approximate estimate of its magnitude and importance In August 1891 there were on this company's pay rolls 26,886 persons actually employed in conducting its operations, or, say, four per mile, whose wages footed up $1,440,000 a month, or more than $17,000,000 a year. Following the line of

argument adopted by Poor, but making every allowance or deduction possible on account of the difference of conditions of railroading as a national question and as locally affecting the Southern Pacific system, which, at present, is doing but little construction work, it can be safely said that there are 10,000 additional persons engaged in labor affiliated with or dependent upon this company, to whom are paid, in round numbers, annually, upwards of $6,500,000. The total number of persons thus considered approximates, 37,000, whose yearly wages amount to upwards of $23,000,000. If each of these employés represents five persons, these figures show an aggregate of 185,000 men, women, and children or, at least, one-ninth as many souls as make up the entire population of California, whose maintenance is more or less involved in the operations of the Southern Pacific railroad company."

From the foregoing the reader will readily comprehend how large is the army of men employed directly and indirectly in the railroad service. Standing for years at the head of the largest corporation on the Pacific coast, and having to employ hundreds of thousands of laborers, Mr Towne has naturally and necessarily taken a great interest in the question of labor. His views on the subject, which are bold and sharp, are entitled to consideration. Touching his opinion of Chinese emigration, and the reason of his sympathy with the Chinese, he said: "The Chinaman is a man among men, a man from a great nation, a man coming from a class of people who have nearly solved the problem of life based upon the most frugal and economical habits. The Chinaman has thoroughly learned the lesson of labor, and no other people in the world can surpass him in this. My experience in the handling of men has taught me to be observant of the disposition to work manifested by the different nationalities, and as I have seen the steady application of this silent and patient toiler, never

losing a moment, and ready and willing at all times, he has seemed to me inspired with the love of work; and, as we all know, labor, whether physical or mental, brings out all there is in man. He who labors simply because he must, will surely fall short of his fellow workman who is actuated by that spirit of honest and economical labor which is so closely interwoven with the principles of our government. The great mental force and intellectual exertion evinced in framing our constitution was the effort of zealous workers, stimulated and encouraged by their constituents, who, in those early days, toiled for what their toil would produce. The Chinaman is persecuted solely because he loves work, and is too faithful and too frugal for our European element. True Christians are now and have always been ready to welcome him to this country. It is the disgruntled, corner-grocery politician who opposes him, because the man from the flowery kingdom will not demand ten hours' pay for eight hours' service; because he will not unite with the labor agitator, join the labor leagues, and spend the greater portion of his earnings at the groggeries. Had the Chinaman manifested a disposition to combine with this disturbing element, the right hand of fellowship would have been extended to him with a neatly folded ballot. Bad whiskey generates in the labor agitator his communistic inspirations, and his followers are made to believe that there is no end to what may be obtained through organized effort, absolutely regardless of the value of the service they may be able to render; regardless of the value of money; regardless of circumstances and conditions which govern and control their employer; in fact, seemingly regardless of the value of any factor entering into the calculation of supply and demand."

He does not regard immigration from Europe or any other country as injurious, inasmuch as we have millions of acres of unoccupied soil for them to till. We should, he thinks, welcome all comers from all

nations, so long as they will work and refrain from agitation.

As to our naturalization laws, it seems to him that they are all wrong, and should be so amended as to place the foreigner under the same restrictions as those of our own children; that there is no good reason or justice in admitting a foreigner to the ballot box until he has lived among us at least long enough to become familiar with our laws, methods, and our state and social relations. "As a rule," he says, "the boy eight years old understands more of our government and its advantages than the average foreigner who lands upon our shores and soon after is given the ballot; while this boy, bright and intellectual, with all his knowledge of our affairs, must wait thirteen years more before he is admitted to citizenship; yet these naturalization laws, I apprehend, will not be amended until our national legislature shall have the moral courage to stand up for the right."

Mr Towne has taken but little part in politics, though by virtue of his employment he has been engrossed at all times in political economy. He has never held nor desired to hold public office. Such a thing would be irreconcilable with his work and his inclination. Yet he feels that he is a servant of the people, for in what capacity is one more in actual public service than in railroad life? In touch with the community at every vital point, questions of general concern form a necessary part of his reflections. His observations have been largely practical, because the outgrowth of his own experience of cause and effect in our political, governmental, and social systems. He judges by what he knows, and is not given to abstract theory; hence, if he has original views and entertains radical ideas on certain subjects, it is at least not because he jumps at conclusions. Proud of his country, he is not blind to the weaknesses of Americanism. "The American, from my observation," he is wont to say, "is not so much of a politi-

cian by nature as the foreigner, who comes among us from the despotic forms of government on the European shores, where he has been held in restraint. On reaching America his inherent ambition, with its communistic tendencies, seems to assert itself, and is aided by the lax nature of our naturalization laws. The result is we have a ward politician, either as a follower or leader, in accordance with the force of his character, and his natural confederates are laborers from abroad. It is largely this laboring element, led by irresponsible agitators, who have an inborn hostility to those who have acquired property; and herein lies the danger to our government, which, though it would be one of the best with a qualification or property vote, yet is one of the weakest—weak because so large a percentage of votes are in the hands of irresponsible men, who permit themselves to be led by agitators. As these votes make the laws, this irrational element is constantly encroaching upon capital, directly through our legislatures and national councils, which, owing to their dependence upon the influence of public opinion, are likely to favor laws that may be tainted with hurtful regulation; and this public opinion is largely created and stimulated by the press, eager to fill its columns with sensational matter. This leaves us, as a last resort, to fall back upon the only safe-guard left, the supreme court of the United States. We should exalt this tribunal above all susceptibility to public influence by making the justices ineligible to the presidency, and, in every other way possible, independent of and indifferent to the popular sentiment. The chief justice and the associate justices should be appointed for life, with the most ample and generous salary commensurate with their ability, their learning, and the high position of honor and trust which they hold.

"So far as I can perceive," he says, "there is no danger to be apprehended from combinations of wealth to control legislation. The influence of design-

ing and unprincipled leaders, professing to represent the people, seems to be stronger than the influence of corporate wealth. Among the greatest public dangers is the character of the many men who ride into office upon votes of the people whom they wheedle into the belief that they have the general welfare at heart! There is a constant tendency of officeholders to pander to popular prejudice, seemingly with the view of personal gain, or of creating a sentiment that will insure their reëlection There is no object-lesson by which I can better illustrate what I mean than the many scandals which are continuously coming to light in the legislatures of the various states of the union.

"Sumptuary laws or regulations are becoming dangerous to our form of government. There are too many attempts on the part of the few to regulate the affairs of the many; there should be little or no governmental restraint placed upon the people. The nation is governed best when governed least.

"Respecting prohibition, its consideration involves many things of moment. The manufacture of malt and spirituous liquors has become one of the most important industries in the United States. The farmers find employment in raising grain for its consumption; great industries are started here, there, and everywhere, employing thousands of men, who have families dependent upon them, in this vast field of labor; casks, bottles, boxes, and packages of all kinds are required for distribution, creating another demand for labor, and thereby giving profitable employment to many people whose happy homes would be disturbed by the abolition of this industry. Its output per annum in dollars and cents is equivalent to the entire gross earnings of all the railroads of the United States, more than $1,000,000,000. Inasmuch as prohibition would be very likely to entail hardship upon thousands of our people, why attempt to regulate this great industry, merely for the sake of endeavoring to correct evils which have grown out of it, in the face of the

fact that the good resulting from it many times overbalances its evil effects? I would not prohibit the manufacture or sale of intoxicants, but I would anticipate intemperance by punishing the miscreant who uses them to excess.

"In regard to female suffrage, I do not believe that woman should be taken out of the domestic sphere which is made sacred to her by nature, and be thrown among men into the polution of politics.

"As to the policy of protection or free trade, the question is more national than local The policy of protection is republican; it is the true system for this government as a nation, under which, however, there are no doubt some localities not so favorably affected as others; yet on the whole, protection is the policy that will make our country rich and prosperous. My experience in matters of transportation teaches me that a nation like our own should supply its vital wants chiefly through its own labor, and it must prosecute the various branches of manufacture and other industry in order to promote prosperity. It is confirmed by universal experience that new countries having abundant and fertile soil, producing grain with facility, naturally tend to become and continue to be exporters of crude products and importers of manufactures, and that they are likely to continue this policy long after they may have attained a condition to manufacture as cheaply for themselves. It certainly seems to me to be injurious to a new country to be dependent for its manufactured articles on an old one. What we need first, and which can only be attained by means of protective duties, is an equilibrium between agriculture, manufactures, and commerce; second, to supply our own wants and export the surplus of goods manufactured in exchange by way of reciprocity with other nations, or in other words not to make of our country so much a manufacturer for other nations as for herself; as I believe it is safe to affirm that articles of consumption which can just as well

and with as little labor be made at home, should manifestly be made by our own people."

I adduce these specimens of Mr Towne's thinking, not that they are mine, or perhaps anyone else's but his own, but because they are his, because they are an expression of his intellectuality and individuality. A man's life is in his thoughts; they are the index to his character. If, as in this instance, action follows thought as sound follows blow, individuality is developed. This is education in its best sense. How the development occurs is less important than the fact that it does occur. Mr Towne is educated; the force that was in him is evolved according to his nature. He assimilated for his development whatever he required from observation or books, but above all grew by experience and practice. A close and constant observer, he could not remember a day in which he had not learned something worth remembering. Never indulging himself in the conceit that he knew enough, he has ever been on the alert to acquire information from whatever source. Thus his store of knowledge has been continuously enlarged. "It is character which builds an existence out of circumstances. From the same material one man builds palaces, another hovels: the one rears a stately edifice, the other lives forever amid ruins. The block of granite that was an obstacle in the pathway of the weak becomes a stepping stone for the strong." The power that there is in education is derived from faithful application to whatever one is engaged upon, and his progress, which may be of the highest usefulness, in any sphere, is limited only by his own labor and spirit. It is in this fact that I find Mr Towne admirable, and, what is very much better, useful, because, as he helped himself, so may others help themselves, and succeed according to their capabilities. "I felt satisfied," Mr Towne has been often heard to say, "that there was very much to learn, and that integrity, perseverance, and good

temper, were elements I should possess if I would succeed." He was endowed with talents which, if improved, enable men to dominate in those things in which the world is ambitious to control, wealth, position, influence. Others starting out as fairly equipped as he, lag or drop out of the race, because they neglect to cultivate by exercise the virtues which lie at the root of personal superiority, the first of which is self-control, out of which grows self-knowledge, and by reflection a knowledge of those about us, who enter into our living. The wisdom of common sense follows, then labor, coupled with will to make it invincible and industry to render it triumphant.

In the maturity of his self-culture, Mr Towne's memory is unusually good, very susceptible and retentive, especially as regards events, dates, and faces. His powers of analysis and generalization are such that certain friends, who held that there are greater demands upon the reasoning faculty in the profession of the lawyer than in that of transportation, which I do not believe, used to say he ought to have been bred to the law. Blending originality and independence with adaptability and caution, he is at once radical and conservative. Thoroughly self-reliant, though ever ready to learn, he relishes responsibility, and his disposition is to lead rather than to follow. Self-contained and ever ready for mental effort, he is capable of a high degree of concentration; and his faculties are under such control that he can turn instantly and altogether away with all his energy from one engrossing topic to another, without apparent disturbance. He has, in masterful development, the faculty of brushing away or piercing through the non-essentials that befog the ordinary brain, and is thus enabled to get directly at the kernel of a business proposition, often before it is stated in detail. His assistants not infrequently receive his decision before the subject they come to present seems fully laid before him, or while, perhaps,

they have much that they would add in elaboration. Sometimes a half-finished sentence gives him a clue to the whole story. Thus endowed with insight and discrimination, it is not surprising that he condenses and dispatches with rapidity a mass of business which would otherwise overwhelm him.

In the discharge of his official duties he is a disciplinarian who cannot brook inefficiency or neglect, and he exacts the most strict compliance with his instructions; but he exacts more from himself, perhaps, than from his subordinates. Yet the courtesy with which he ordinarily softens command causes his orders to be obeyed with alacrity. Full of personal magnetism and winning in his address, he can control by sympathy; but if this fails, he can crush by the sheer power of will. His experience has been one of tremendous labor, with more or less conflict at every turn; but having first fairly secured the mastery of himself, he was strengthened to cope with others. Plain in every respect, unpretentious and business like, he requires expedition in speech and work; but with whomever he comes in contact he seeks to be patient and agreeable, and he meets all persons, above or below him, with due consideration and politeness. If ever stern or severe when at work, the pressure under which he lives can fairly be pleaded in extenuation. At certain points his self-discipline is admirable; he does not allow himself to give way to passion, the nervous reaction from which is hurtful, but he yields to his impulse to be a little sarcastic at times at the expense of others. The fruits of his life's labors, the whole sum of his energies, are a contribution to general charity in the form of industrial development; nor does the direct appeal for help ever find him unresponsive. Having a man's courage and generosity, a woman's or a child's distress commands his sympathies.

The strain that he has been under for years, consequent upon the great labor, responsibilities, and

cares of his office, has taxed his nervous organization; on more than one occasion he would have succumbed to the pressure but for his extraordinary grit. Keyed up to the highest tension, he has scarcely ever allowed himself relaxation. To those who hold his health and welfare near at heart, and tell him he must rest: "Not now;" he answers: "we will have by-and-by, after physical existence, all eternity for rest." There is room for philosophizing here; but let each mortal so organized work out his destiny, for he will whether we will or not. Mr Towne has but slight inclination or time for social diversions, and has taken only such part in society as his eminent position in the community has made it almost impracticable for him to avoid. His home is his place of rest and recuperation; he finds there, among his family and loyal friends, all the pleasures that he craves outside of business. A patron of the clubs, he is not a club man. Mrs Towne has passed with him through all his vicissitudes, and borne in her sphere the woman's full share of her husband's trials; and, as in the case of pure metal the severer the test the brighter it shines, so has her character been demonstrated. Their only child, Evelyn Amelia, born in Chicago September 2, 1862, married Charles N. Shaw, whose decease occurred in January 1891. The issue of this marriage is a son, Nelson Towne Shaw, born May 16, 1883, who bears a most striking resemblance to his grandfather. A promising representative of the tenth generation of the family, he gives evidence, at a very early age, of the strong features of character which individualize and distinguish his ancestor of the eighth generation. Of Mr Towne's brothers, all have been prominently connected with transportation on the great roads of the country, on which, by their own efforts, they rose to honorable and responsible positions. Three of them, H. A., formerly general superintendent of the Northern Pacific railroad; M. M., assistant superintendent of the Atchison and

Nebraska; and M. D., many years identified with the Chicago Burlington and Quincy, have all retired, and became engaged in other business; L. W., for many years general superintendent of the Kansas City Fort Scott and Gulf railroad, retired from that position on account of declining health, but remained identified with the interest he so long represented. His only sister now living, Semantha, is Mrs George Marsh, a resident of Providence, Rhode Island.

CHAPTER V.

ROUTES AND TRANSPORTATION—INLAND AND OVERLAND.

EVOLUTION OF THE EXPRESS BUSINESS—STAGE LINES—POSTAL MATTERS—TRANSCONTINENTAL MAIL AND PASSENGER WAGON LINES—THE PONY EXPRESS—TELEGRAPHIC COMMUNICATION—SUB-OCEANIC TELEGRAPHIC EFFORTS AND ACHIEVEMENTS—THE TELEPHONE.

As further preliminary to the great subject of modern railway traffic, not less than on account of their own intrinsic interest, I present in this and the succeeding chapter a complete elucidation of the matters relative to expresses, stage lines, postal matters, overland wagon routes, telegraphs, and ocean traffic. Previous to the admission of California as a state of the union, there were no mail routes established in the interior, and although a mail was sent out by sea to San Francisco in 1849, there were no means of distributing it through the country. The first effort made to relieve American residents from their isolation was prior to the gold discovery, when in 1847 C. L. Cady attempted to establish a weekly express service between San Francisco and Sutter's fort, which failed for want of sufficient business to sustain it. Then military expresses between posts were established, and carried free the letters of the inhabitants on their routes. The first transcontinental express was also conceived in this year by the editor of the *California Star*, and actually left for the east April 1st, being announced to go to Independence, Missouri, in sixty days, and charging fifty cents postage on a letter. This was not, however, a regular line, and only made one trip.

It was not until 1849 that a business was developed from the necessities of the case which proved most lucrative as well as useful. Alexander H. Todd was probably the first person to engage in it. He arrived in San Francisco on the pilot-boat *William J. H. Hackstaff* June 23, 1849, five months after the first United States mail was received by steamer in California and went at once to the southern mines. His health not permitting him to work in the mines he conceived the idea of starting a letter express between these diggings and San Francisco, after the following manner. He took a list of all the names of persons in the mines expecting letters, charging a dollar for registering. Proceeding to San Francisco he was sworn in as a postal clerk and took possession of all the mail matter for the persons on his list. Returning to the mines he delivered the letters at four dollars each and sold all the New York papers he could obtain in San Francisco at twice that sum per copy. As he had at one time over two thousand names on his list the business of letter-carrying became profitable at small expenditure of capital. As this was deemed by the postmaster at San Francisco too good a thing to be enjoyed by one man alone, and as he thereby lost some of his perquisities, Todd was compelled to pay him twenty-five cents on each letter. At a later period the Nevada City agents to save the twenty-five cent fee took their places in the line of ordinary applicants, but this was tedious work where thousands were called for, and the loss to the postmaster, whose insufficient salary was eked out with fees and box-rent, was a serious one. Letters had sometimes to be returned uncalled for, and these were marked by numbers so as not to be rehandled in assorting the mail in San Francisco. Practically the plan worked well and was a great convenience to the miners, and, in fact, to all classes.

On his first trip down the river from Stockton, Todd was entrusted with about $250,000 in gold-dust,

which he packed chiefly in a butter-keg, and which he had considerable difficulty in conveying to its destination. There were then no wharves in San Francisco—nothing but a staging built up from the water to the stranded ship *Niantic*, lying in the mud at the corner of Sansome and Clay streets, and a keg of gold-dust was no feather weight to handle. However, he safely delivered the gold to Lord & Co., and received his five per cent charges.

No steamboats were running to Stockton at this time, and the passage had to be made in oar-boats. For the return trip Todd was compelled to purchase a boat, out of which he made more money, as there were as many passengers as he could carry, at an ounce each, who were, besides, willing to labor at the oars; and when he reached Stockton he immediately sold his boat at an advance of $200 to a party desiring to go down the river.

Todd's business extended rapidly, the main office being in Stockton, with agencies all through the mines and up into Oregon. Every merchant of any prominence was an express agent, and delivered express letters and packages. Todd frequently started on his rounds with two pack-animals laden with letters and papers, returning with the same beasts laden with gold-dust. The necessity for taking care of the gold entrusted to him compelled him to keep safes at various offices, for the use of which he charged one-half per cent a month on deposits, the business gradually merging into banking, with the privilege of using the gold in general deposit, special deposits being marked with the owner's name and sealed, for which was paid one per cent a month, a receipt being the only security given. Todd's profits were for some time as high as $1,000 a day, which were shared by a partner, E. W. Colt. There were many imitators of Todd's express. W. C. Randolph and others who had pack-trains running to the mines carried letters

and parcels, charging $1.50 for each letter, and whatever they might fancy for any service of the kind.

It might be supposed that expressmen would be in special danger from highwaymen; but in the early days of express carrying the nature of their business, in which every one was interested, was a protection to them, and it would have gone hard with the robber daring enough to molest them. They were not infrequently robbed by employés, as might also have been expected in the mad strife for riches, and with the temptations presented. One of Todd's clerks at Stockton absconded with $70,000; another in Mariposa with $50,000; and one at Mokelumne Hill with $40,000. The last mentioned, on being discovered, committed suicide. From fires and from perils of land and sea, the Todd men suffered in common with others.

A volume of adventures might be written from narratives furnished me by men in this branch of transportation. There could but be a vast amount of extraordinary experiences in the lives of persons brought into contact with every class, and under all conceivable circumstances. Todd retired from business in 1853, the government having organized a system of post routes and offices, while means of transportation had multiplied and prices fallen off. But there were many more in the same business, almost as early as himself, and until by gradual absorption the one or two great companies had obtained control of the business to the exclusion of the lesser.

About the same time that Todd started his express, William T. Ballou, an enterprising young fellow of French descent, arrived in San Francisco, and also went to the southern mines, where he engaged in letter-carrying in the manner already described. In December 1849, one Upham, who had been a messenger for the oldest express company in the United States, Harnden's, started a line between Sacramento

and San Francisco, where it connected with John Freeman's steamer express to New York.

The express business, which finally assumed in California such magnificent proportions, was an evolution from small beginning. Mind, as well as muscle, sagacity, as well as energy, were required in its management, and a large element in its success was moral power, faithfulness, and constancy to a purpose.

The first expressman, in the sense in which it is here meant, was William F. Harnden, born in Reading, Massachusetts, in 1812. He had for several years been passenger conductor on the Boston and Worcester railroad, and clerk for New York steamboat companies, when in 1839 he made arrangements with his former employers to run an express car on their trains between Boston and New York four times a week, commencing March 4th of that year. He accompanied the car, superintending the reception and delivery of all kinds of small packages, purchasing goods for customers, and collecting drafts, notes, and bills. He had not been a month in this business before he became popularly known, and the public recognized the convenience of such an agent. The business, however, was at first small, and threatened, to prove unsuccessful, until the starting of the Cunard line of steamers, which commenced running in 1840, and so increased the number of small packages as to give him a living patronage.

Harnden's first office in Boston was at No. 9 Court street, and in New York at the corner of Wall and Nassau streets. The first loss by the express was $20,000, which went down in the burning of the steamboat *Lexington* on the night of January 13, 1840. In November of this year Harnden became associated with Dexter Brigham, Jr, and established a trans-Atlantic line, and a foreign exchange business with the chief cities of England and France, soon followed by similar offices in Scotland, Ireland, and Germany, becoming agencies for the convenience of

immigrants who desired to send passage money to their friends at home. Harnden & Co. also contracted with Boston packet-ship owners for the cheap conveyance of immigrants, and with the New York and Erie canal for the exclusive use of all their passenger-boats for the same purpose, affording protection to the newcomers from the extortion of land-sharks. Before 1844 Harnden had been the means of bringing to this country over 100,000 laborers, and placing them on western railways and canals.

Harnden was too liberal and public spirited to lay up wealth for himself, and died at the age of thirty-three of consumption, leaving a reputation which any man might envy. His European business fell to Brigham and others; and his Boston and New York business, or home express, was sold to Brigham and associates in 1846. The European company failed from injudicious speculation in 1851; and the home express the same year established a semi-weekly line between New York and Savannah, whose success caused it to be extended to other southern cities, even as far as New Orleans and Galveston.

The first imitator of Harnden was Alvin Adams, who in May 1840 started, with P. B. Burke, an opposition to Harnden. Burke soon retired, and Adams for a year or two performed all the work, and without a wagon. His next partnership was with William Farnsworth, which expired in 1842. The New York office was in a basement in William street near Wall street, with William B. Dinsmore for a clerk. Dinsmore became his third partner, and a useful one. Their operations were confined for several years to New York, New London, Norwich, Worcester, and Boston, all the business being done by two or three men and a boy, in the most economical manner. Their patronage increased, horses and wagons became necessary, branches were extended, and in 1850 Adams & Co. paid $1,700 per month for the space they occupied in a car on the express train on the New York

and New Haven railroad. The rapid increase of railways added to their business, and they were able to buy out several minor companies which had started up in the south and west; and in July 1854 the business became the property of thirty or forty persons in different states, constituting the Adams Express company, with a capital stock of 15,000 shares. Other imitators of Harnden arose, and there were several companies of more or less note in various parts of the east.

Freeman, mentioned above, was an agent of the Adams Express company, whose disastrous failure in California in 1855 is a part of the history of the state. The firm sent out, in October 1849, D. H. Haskell to found a branch house on this coast, whose business was at first confined to oceanic transportation and steamboat lines, but it gradually grew into a large banking business, until its yearly profits in this state reached half a million. Its failure was consequent upon a panic caused by the suspension of Page & Bacon of St Louis, which affected every business house in the state. Some of them soon recovered from the shock, but Adams & Co. were not among them, and a scandal attached to their failure which has never yet been explained away, and only the fact remains that their depositors lost heavily by their bankruptcy.

The oceanic express routes in 1849–50 were divided between Adams & Co., Gregory & Co., Haven & Co., Livermore & Wells, Miller & Co., Dodge & Co., and Berford & Co. The last named ran the only express line to San José; Gregory & Co. had offices in Sacramento, San Francisco, Honolulu, and Portland; Freeman & Co. operated a line between San Francisco and Sacramento, and kept a safe on the steamer *New World* which ran on this route.

One of the earliest express lines was Langdon's, in 1850, which operated between Marysville and Downieville, and subsequently to San Francisco. He was

at first a rival of Ballou, but they finally became partners. Most of the single expressmen suffered by competition. Palmer & Co. ran against Freeman on the Sacramento; C. J. Brown rivalled Todd; in Nevada City the Bowers Brothers, who ran to Sacramento and San Francisco, were rivalled by Hamlet Davis, and Hoffman & Little, and finally by the greater companies of Adams & Co. and Wells, Fargo & Co. No less than six companies had offices in San Francisco at one time.

The oldest company in El Dorado county was established by Alexander Hunter, the agent of the California Stage line, who sold out in 1855 to Wells, Fargo & Co., who had offices in every town in the county. Others who started express lines were Harris, in 1854, from Placerville to Coloma and the mining towns on the north; Asa L. Waugaman, who ran to Grizzly Flat; Redd, who ran to Indian Diggings; and Theodore F. Tracy, who ran a tri-weekly express in 1857 to Genoa, in Carson valley; and Tracy & Spear, who established a line to Georgetown in 1858. In addition to these more local lines, all the other great companies had agents at Placerville.

From Marysville and Yuba City, besides several of those already named, were Newell & Co. in 1851; F. Rumrill & Co. in 1853; Everts, Snell & Co. in 1854, succeeded by Everts & Co.; Everts, Wilson & Co., 1857; Whiting & Co., 1858; and the same year the Alta Express Co., Gibson's Express Co., and Hanaford & Co.; in 1860 Holland, Morley & Co.; and in 1870 the Pacific Express Co., followed by Wells, Fargo & Co.

In the north the mining districts were even more dependent on expresses than those along the rivers, and near post-routes. Before 1853 there were no postoffices in Siskiyou county, and letter carriage cost for a time $3 a letter, and newspapers half as much. In January 1853 S. D. Brastow carried six hundred letters on his back from Tower house to Cal-

lahan's rancho, over a road that had not been travelled for two weeks. Two dollars was the charge for delivering letters later in the year. Some idea of the business can be obtained from the official statement that, during the year ending March 1853, the Shasta postoffice received for distribution 41,263 letters, of which 37,025 were delivered, 3,495 sent to the dead-letter office, and 743 remained to be called for. The greater part of those delivered went to the mines on Trinity, Scott, Salmon, and Klamath rivers, and Yreka.

The first express in Siskiyou was started in 1851 by A. E. Raynes, between Trinidad and Bestville. He became soon identified with the firm of Cram, Rogers & Co., who ran a line to Shasta. A freight and express line was put in operation somewhat earlier by Elijah Steele and others, from Scott bar to Sacramento via Yreka, Steele riding express, which was discontinued in the winter of 1851. F. A. Rogers, of the firm of Cram, Rogers & Co., went to Yreka and established a banking business in connection with the express; Robert Cram represented the company at Shasta, Edward Rowe at Weaverville, and Richard Dugan at Jacksonville, Oregon.

The following year Rhodes & Lusk started a rival line, connecting at Shasta with Wells, Fargo & Co., while Cram, Rogers & Co. connected with Adams & Co. The failure of the latter was a fatal blow to Cram and associates. A line was then started by J. Horsley and S. D. Brastow to connect with the Pacific Express company. This line was soon succeeded by an express, banking, and passenger business, started by George, Henry, and Ridgely Greathouse and Hugh Slicer. This company ran stages to Callahan's rancho, and sent their express and passengers thence over the mountains on mules. Rhodes & Lusk became Rhodes & Co., then Rhodes & Whitney, and when the California Stage company commenced running to Yreka, they were succeeded by Wells, Fargo & Co., whose agents are now on all the stage routes.

The express company of Wells, Fargo & Co. was incorporated in New York in the spring of 1852 by Henry Wells, W. G. Fargo, Johnston Livingston, A. Reynolds, and E. B. Morgan, to extend the Pacific business of Livingston & Wells. It was a joint stock company, with a capital of $300,000, with E. B. Morgan president, and several of its officers were managers of the American Express company. This facilitated its operations, and enabled it to reduce the price of express freight between New York and San Francisco from sixty to forty cents a pound, competitors being compelled to do the same. Their office remained at 16 Wall street for several years, and was then removed to 82 Broadway. The second president of the company was Louis McLane, in 1855, who introduced government stamped envelopes into their letter business. Louis McLane was succeeded by Charles E. McLane as manager, who was in turn succeeded by Lloyd Tevis.

The California branch of Wells, Fargo & Co. was greatly advanced by the failure, in 1852, of Gregory & Co., whose business was thrown into their hands at the start, and whose established lines they hastened to secure, while the failure of Adams & Co., in 1855, completed their ascendency. The former employés of that company organized the Pacific Express company, which, with the Union Express company, maintained for some time an ineffectual opposition. The latter was a branch of the Merchants' Union Express company of New York, which had branches throughout the United States, and its agent in San Francisco was L. W. Coe. But Wells, Fargo & Co. had secured the business of all the principal lines. They transported in California in 1857 $60,000,000 in gold, besides letters and packages, and increased their capital in a few years from $300,000 to $2,000,000, with a line across the continent. That portion of their transcontinental line east of Utah was surrendered in 1866 to Ben Holladay, who had obtained a contract

to carry the mail from the Missouri river to Salt Lake City, and through Idaho to Walla Walla.

On the completion of the Central Pacific railroad, the Pacific Express company again rose in rivalry, having the Union Pacific railroad at its back; but the transfer of a certain amount of Wells, Fargo & Co's stock to the Central Pacific company secured a monopoly of the business over that line, and cut off the rival company from California.

The influence of this company was sufficient in 1868, before the completion of the railroad, to induce the Pacific Mail Steamship company to refuse to carry the Union company's freight. Allen McLane was at that time president of the Pacific Mail, Louis McLane president of Wells, Fargo & Co.'s Express company, and a director of Pacific Mail, and Charles McLane was freight clerk of the Pacific Mail and a superintendent of the express company. Why should not Wells, Fargo & Co. have the control of the express business? This company employs 1,300 men, transports annually goods to the value of $250,000,000, has its messengers travelling over 7,000 miles of stage, 8,000 miles of steamboat, and 12,500 miles of ocean routes. It carries and delivers money, valuables, packages, merchandise, and letters; it collects invoices, drafts, bills, coupons, dividends, or other paper; it fills commissions, records deeds, pays taxes for non-residents, and serves legal papers; it reclaims baggage and other property at hotels or warehouses, and redeems articles in pawn; it transfers money by telegraph; it attends to orders for goods and household supplies; and furnishes foreign and domestic exchange in addition to doing a regular banking business of its own in New York, San Francisco, Salt Lake City, Virginia City, and Carson, all of which services are now performed at reasonable rates.

Although not originated in California, the express service was developed just in time to be of the greatest benefit to the people of this state, where it was

thoroughly perfected. Good faith has distinguished it from the beginning. It has carried letters, books, newspapers, luxuries, and necessaries to the remotest parts of the country, and transacted business for the miner and settler, saving them from great inconvenience.

The present company has for many years kept a record of the bullion transported by them, which answers so nearly to the amount produced as to be quoted as such by the government statisticians. Although among the earlier individual expressmen and companies were some who were uneducated, there were none who were lacking in manly courage or intelligence. Their places are now filled by equally brave and more accomplished agents and officers, competent to grasp any commercial problem. If there is less lonely mountain travel afoot or on mule-back, with highwaymen lying in wait, and less floundering through snowdrifts, with occasional deaths from cold or accident, there is still the element of peril in the service, and not a few assaults are made upon the messengers on stage and railroad lines. It seldom happens, however, that the robbers of Wells, Fargo & Co. escape, the rewards offered and the perfection of the detective system rendering it nearly impossible to avoid ultimate capture. Thus what started as an individual experiment in 1839, in 1849 was transplanted to this coast by an individual, and in another ten years had spread over the whole state and across the continent in the hands of corporations, and to-day is a necessity of our civilization, a means of culture, and a protection from crime.

The question which several times arose of the propriety—there could be no question of the right, since the company paid the United States postage—of the express companies becoming letter-carriers, was revived with vigor in 1880, and a commission was appointed to report upon the subject, who gave it as their opinion that the practice should be prohibited.

This opinion was based upon the general proposition that the federal government should monopolize the carriage of letters; but it was admitted, inferentially, that in the early settlement of the Pacific coast the necessities of the people made it, if not proper, at least pardonable, to thus interfere with the government's prerogative. Wells, Fargo & Co., on their side, answered that instead of injuring the receipts of the postal department, as was charged since the adoption of stamped government envelopes, they actually were a valuable auxiliary of the government, which was at no expense to carry the mail matter for which the company paid the postage. The press and business men took part in the controversy. It was said by these that it was impossible for the government to create postal facilities as rapidly as they were needed on this coast. Camps and settlements existed hundreds of miles from a postoffice which the express company supplied, and which would otherwise remain in complete isolation, to the detriment of the post-office department as well as their business concerns.

In 1864 the chamber of commerce of San Francisco in protesting against the mismanagement of postal affairs on this coast, pointed to the fact that a single enterprising express company, advertising about 150 offices and agents in the Pacific states and territories, and charging from nine to ten cents coin for a single letter, had a business far exceeding the entire letter business of the San Francisco office, which was a distributing office for nearly the whole western coast of America. This company, it was said, averaged not less than 175,000 letters per month on which they paid postage, besides a large number of stamps for overweight. The preference shown for express transportation was on account of the greater facilities furnished to meet the wants of the people, which the government was admonished to emulate.

Similar reflections upon the postal service were uttered in the controversy of 1880, and a memorial

signed by 50,000 citizens of the Pacific states, with resolutions of the California legislature, San Francisco produce exchange, and New York and San Francisco chambers of commerce, protesting against the threatened suppression of the company's letter-carrying facilities were laid before the commission. A report, however, was drawn up in which the commission declared it to be their "deliberate opinion that the letter-express business of Wells, Fargo & Co. is, in all its phases, at variance with both the letter and spirit of the postal law; that its operation is calculated to injure and degrade the postal service, and that the interests and the dignity of the postal department demand its immediate discontinuance. We think, moreover, that the free conveyance of this company of the correspondence of its banking-house, and the Western Union Telegraph company, and Central Pacific railroad is a gross wrong to the government, and an indefensible infraction of law that ought not only to be at once interdicted, but for which, if there is any legal means of obtaining it, the department should seek indemnity." In other words, if business men can do so much better than government officials, the former should be ashamed of themselves, and be put down, that the dignity of the latter be not overwhelmed by confusion. But on the report Postmaster-general Key had to decide for or against the memorialists of the Pacific coast, and he decided not to interfere with their letter-express business. It has, however, declined over fifty per cent with the increase of mail facilities.

The directors of this company have been participants in many transportation enterprises, including stage and railroad lines, and the pony express. Henry Wells, one of the founders, died in New York in 1878. Of late years regular four per cent dividends have been declared to stockholders semi-annually.

Something more may be said of stage lines. I have remarked elsewhere that probably the first pub-

lic-wheeled vehicle for carrying passengers in California was a wagon drawn by horses, which in 1848 ran once a month from Daniel Silles' rancho in the upper valley of the Sacramento to meet the "safe and commodious launch" of the trader Cordua, at New Mecklenberg on Feather river. It could not have had many passengers when it started, but the gold discovery must have made busy times for it, and have hurried the launch into making more than one voyage a month. Doubtless every vehicle in the country was pressed into service. It is certain that the first regular passenger-wagons or stages put on the road early in 1849 were not of the description denominated coaches. A Mr Raney, who had a rancho at the base of the Sierra, established a line of passenger-wagons between Stockton and the Calaveras river; and a four-mule team and wagon owned by L. B. Mizner and S. K. Nourse made tri-weekly trips between Benicia and Sacramento, which were continued until the rains set in, and steamboats made their appearance on the river.

San José being the capital of California after the constitutional convention, was favored with a stage-line from San Francisco in 1850, owned by J. B. Crandall and his partner W. F. Hall. It had, in fact, two lines, as I learn from the account given in Burnett's *Recollections*, in which he describes the race between them in the strife to be the first to reach San José with the news of the admission of California into the union. As they flew past the few settlements, the people who appeared at their doors to learn the meaning of the unusual scampering of the cayusus, and rattle of wagon-gear, were greeted with the hoarse shout, "California is admitted!" answered by enthusiastic cheers.

James Birch is believed to have established the first stage-line in California early in 1850, between Sacramento and Nevada City, via Grass Valley, Rough and Ready, Rose bar, and Johnson crossing

of Bear river. He also operated a line from Sacramento to Georgetown via the south fork of American river, Mormon island, Salmon falls diggings, Cold spring, and Placerville. In 1851 he changed his first route to one via Round tent, running five coaches to this point, where passenger-wagons were substituted. His stages and teams in 1854 were valued at about $75,000. Sacramento was the starting-point of these lines until the Sacramento Valley railroad was completed to Folsom in 1856, when that became the place. When the Central Pacific, and California Central reached Lincoln, Auburn, and Colfax, the stages started from any of these points nearest their other terminus. The building of the narrow-gauge railroad caused the discontinuance of the stage-line to Nevada City in 1876. Birch sold out his Georgetown line in 1856, to Wellington, who sold it to Orr. The mail contract being awarded to H. F. Page and Bart. Morgan, they sold it to Lewis & Houchin, the latter transferring his interest to Lovejoy, who for many years ran two daily lines of stages to and from Auburn to Georgetown and Placerville.

Stevens & Co. in 1851 established a line of stages between Placerville and Sacramento via Diamond Springs, running two wagons daily in each direction. In 1854 an opposition was put on this route, which continued for several years and was finally compelled to abandon the field. Stevens' line was called the Pioneer Stage line, and Alexander Hunter was agent. In July 1854 the company added a new line to run between Placerville and Georgetown, by way of Kelsey and Spanish Flat, connecting at Placerville with their main line to Sacramento, and continued beyond Georgetown by way of Spanish Bar across the middle fork of the American river. In April 1855 another branch line was started, running between Fiddletown and Mud Springs, where it connected with the Sacramento stage, which accommodated itself to the change of the railroad terminus from Sacramento to Folsom,

Latrobe, and Shingle springs. This line only ceased in 1887 when the railroad to Placerville was completed.

During the summer of 1850 a daily stage-line was started between Sacramento and Marysville, and the following year five daily stages ran over this route, one of which carried twenty passengers. Langton's express and passenger line ran from Marysville to Downieville in the spring of 1850, going at first no farther than Dobbins' rancho, where the passengers and freight were transferred to pack-animals. The Evening Pilot line and the Accommodation line ran between Sacramento and Marysville. Buckingham and Adriance owned three lines, namely, those between Marysville and Auburn, Marysville and Park Bar, and Marysville and Nevada City. Charles McLaughlin owned four lines out of Marysville, namely, to Downieville and Minnesota; to Oregon house and Dobbins' rancho; to Bidwell bar, and to American house and Sears' diggings. A line from Marysville to Bidwell was also owned by O. W. Sawtelle.

Buckingham and Adriance became members of the California Stage company which ran their lines for a dozen years. They were succeeded in 1866 by Doty & Montgomery, who sold in 1867 to Cunningham & Riley, who in turn sold in 1870 to C. Sherman & Co. The California Stage company also ran a line from Marysville to North San Juan until 1866, when they sold it to Cunningham & Moody, who transferred it to John Hogan, who in turn sold it to Sherman & Co. in 1876. J. A. Seeley started an opposition and ran it for two years, but finally sold to the California Stage company. During the Meadow lake excitement a line was established to that point. For several years, also, stages were run from Nevada City to Virginia City via the Henness pass; and the California company, J. K. Sale & Co., and the Pacific Stage company owned by James McCue and Michael Reese, all had lines on this route. Truckee in later years

became a stage centre, having seven daily and tri-weekly lines running to Tahoe City, Donner lake, Sierra valley, and Eureka south. There are still nine stage lines leading from Nevada City to different parts of Nevada and Sierra counties.

Conder & Co. established a stage line between Placerville and Coloma in 1851, and in 1854 added a tri-weekly stage from Placerville to Drytown in Amador county, which ran by the way of Diamond springs, Mud springs, Logtown, and the forks of the Cosumnes river, connecting with lines for the southern mines, and changing to a daily line in 1855. In 1856 a tri-weekly opposition was started on this route, and also a tri-weekly line between Placerville and Indian diggings, which were owned by George C. Hamlin & Co. An opposition ran on the latter route. In 1857 Henry Larkin established an Omnibus Stage line, which made two trips daily between Placerville and El Dorado. The same year J. B. Crandall established a weekly line of stages to Genoa in Carson valley, which the following May became a semi-weekly, and later a daily line.

The first stage to Shasta was started from Colusa in 1851, by Baxter and Monroe, via Monroeville and Red Bluff, on the west side of the Sacramento river, which line was finally extended to Sacramento city via Marysville, and in 1852 an opposition was put on this route by Hall and Crandall, whose line, however, crossed the river at Tehama, and went by Bidwell's and Neal's ranchos to Hamilton and Marysville.

There were seven daily lines leaving Stockton every morning in 1851. In 1855 the California company established a line to Los Angeles, which was the first overland communication had between that place and San Francisco. During the same year a new route was opened from Oakland to Stockton, from Benicia to Sonoma via Napa, from Marysville to Comptonville, and from Sacramento to Fiddletown. It was not until 1856 that a stage-road was laid out

and improved to Yreka, the capital of the northern mines. Previous to this, river navigation had been extended to Tehama, whence there were pack-trains despatched to the mines.

It was not until 1854 that stages were seen in the county of Siskiyou, when two Concord coaches were brought there by Hugh Slicer, by the way of the Willamette, Umpqua, and Rogue river valleys, and the road over the Siskiyou mountains. With these a line was started by Slicer and Greathouse, to run between Yreka and Callahan's rancho, where passengers for Shasta were transferred to mules. In 1856 a road was located via Pit river, and the California company put on a daily line from Sacramento to Yreka, with the design of extending it to Portland. In fact, in September of that year a tri-weekly stage was run from Yreka as far north as Jacksonville. But in January 1857 the Pit river Indians having massacred a number of persons in Fall River valley, and attacked the stage, the line was withdrawn for a time from the route. The California company bought out the Slicer and Greathouse stock in 1856, and ran lines from Yreka to Callahan's rancho, crossing their passengers over the mountains on mules, and transferring them to stages on this side to French gulch. The next movement was to "pack" a small wagon over the mountains to use in Trinity valley. But in 1857 the company constructed a road over Trinity mountain, which still left Scott mountain to be crossed on mule-back. This last obstacle was overcome in 1859, when, at an expense of $25,000, a road was constructed over it, and the way was clear from Shasta to Yreka. Until the autumn of 1859 the stage to Jacksonville was only run in the summer, but that year an Oregon company expended $10,000 on improving the road of the Siskiyou mountain, so that in 1860 a daily line of stages was established between Sacramento and Portland, which later was abbreviated at both ends by the construction of railroads, and finally closed out

in 1887. Another route was opened in 1860 from Yreka to Soda Springs by Stone and Sullaway. From Soda Springs the pack-train of Loag and Kenyon transferred passengers to Pit river, where stages awaited them for Shasta. A toll-road was subsequently built by Stone and son on this route, over which William Sullaway ran a line of stages to Red Bluff for several years.

In the southern counties lines of travel were more slowly perfected than in the mining districts. The first mail wagon to come to Los Angeles was one owned by Gregory's express company, which in 1851 delivered the mail one month and nineteen days after it left New York; nevertheless, but for Gregory it might have been much longer on the way, or not have come at all. It was not until 1857 that David Smith ran a line of semi-monthly stages between Los Angeles and Visalia, and thence to San Francisco, or that Wells, Fargo & Co. established an office in the city of the Angels. But then it was in that portion of the state known as the cow counties, where anything on wheels more lively than the Mexican *carreta* was seldom seen. About this time the county expended several thousand dollars in improving the Tejon pass and road, and in 1859 Paul and Chapman established a weekly stage between Los Angeles and San Diego, via San Juan Capistrano, followed by the Overland stage line, which came into the sleepy town three times a week with a mail three weeks out of St Louis.

In 1859 Paul and Chapman established a weekly stage line between Los Angeles and San Diego; in 1861 Catlick & Co. inaugurated a tri-weekly stage line between Los Angeles and San Diego; and in 1862 Alexander & Co. ran stages and an express from Los Angeles to the Colorado river, the fare being forty dollars, and carrying letters, gold-dust, etc., the United States mail line established in 1858 having been removed to a more northern route. In 1863 C. M. Small & Co. ran a stage between Los Angeles

and Soledad, connecting with the arrival of the steamers at San Pedro; and George C. Andrews, about midsummer, introduced four-horse coaches on the road to San Bernardino, making two trips each way weekly. Bruce and Knight also put stages on the route between Los Angeles and La Paz, the time being four and a half days and the fare forty dollars. In 1864 P. Banning added a line between Los Angeles and Wilmington, and in 1865 Tomlinson & Co. ran a weekly stage line to the Clear creek mines.

In 1866 there were nine stage lines arriving at and departing from Los Angeles, of which that to Fort Yuma via San Bernardino, and Lovatt's daily line to San Francisco, both carrying the mail, were the most important. The following year Tomlinson & Co. ran a tri-weekly stage to Tucson, Arizona, and in 1868 Harper & Co. put on a line to Owen river. In 1872 a new line was established between Los Angeles and Visalia, which was the last of the stages which preceded the railroad era in Los Angeles county. As for San Diego and San Bernardino, they had little communication with the rest of the world except by sea for the former, and the tardily established mail conveyances for the latter, until the railroads began to develop their business resources.

It is easy to understand the demand for passenger transportation by so restless a population as that of California. Many of the early express companies ran passenger-wagons where their routes would admit of it. The number of persons in the stage business caused at first lively competition, leading finally to combination. From Tehama to Shasta, for instance, the rivalry was keen. Each line held out inducements in the way of superb accommodations. Six-horse teams, worth from $2,000 to $4,000, and coaches carrying twenty-four passengers, inside and outside, bowled rapidly along the narrow but well-graded roads, in charge of a driver skillful as to his profession, dainty as to his dress, and often gifted with a

humor which made his society much sought after by knowing travellers. Punctuality was a cardinal virtue with these accomplished whips, and no railroad conductor could handle his gold chronometer with a more decided air. "All aboard!" and away went the fresh team from each wayside station with a bound, while the silken snapper at the end of the driver's long lash fired off a succession of shots close to their ears which kept them at a goodly speed for every mile of level or down grade road. The staging of no country ever surpassed California staging in its best days.

In January 1854 a combination was formed among the principal stage companies and owners which resulted in the organization of the California Stage company, with a capital of $1,000,000. Its first president was James Birch, who put in $75,000, and J. Haworth was the second. Other officers of the association in 1855 were Frank S. Stevens, vice-president; J. P. Leighan, secretary; C. McLaughlin of Marysville, G. F. Thomas of Stockton, and W. F. Hall of San Francisco general superintendents; James Haworth, F. S. Stevens, James Birch, O. N. Morse, W. F. and J. F. Jenkins, C. S. Coover, C. McLaughlin, N. Hedge, William McConnell, John Adriance, Charles Green, and G. L. Thomas trustees.

The company had some opposition, as in the case of D. F. Rogers & Co., who established the Comptonville and Downieville stage line, and of Uncle Obed's Independent line, which gave the more powerful organization some trouble to drive off their routes in 1855; but as they could better afford to reduce fares than their competitors, they soon had the field to themselves. In 1860 they controlled eight of the best routes in the state, covering 1,093 miles, while the independent lines numbered nine, over 404 miles of road. All radiated from Sacramento except the solitary one from Los Angeles to Visalia. The number of men employed by the California company was 138, besides their office and road agents.

In 1860, as I have before mentioned, they established a daily line of stages to Portland, Oregon, which had hitherto been dependent upon sea service. In 1866 they sold the property on this line to Frank Stevens and Louis McLane, who obtained a special contract to carry the mail. They soon sold out to H. W. Corbett, Elisha Corbett, William Hall, A. O. Thomas, and Jesse D. Carr, who operated the line until the autumn of 1859 under the name of H. W. Corbett & Co. Then Carr bought the stock and carried the mail until 1870, in which year the Oregon Coast Overland Mail company obtained the mail contract and purchased Carr's stock. This company was composed of J. L. Sanderson, Bradley Barlow, C. C. Huntley, and J. W. Parker. The firm subsequently became J. L. Sanderson & Co. In June 1871 they abandoned the route over Scott mountain, and sent their stages by the Pit river route from Redding to Roseburg, supplying the mail to the old route from Shasta to Yreka on horseback to Callahan's, and thence to Yreka in a wagon.

This way contract was secured in 1874 by the People's Stage company, composed of I. Taggert, J. W. McBride, James Vance, George Smith, and Abisha Swain. They put on a line of two-horse wagons, but soon sold out to Taggert and Culverhouse, Taggert then becoming sole proprietor, and finally Taggert and Majors owning the stock. In 1878 the original Oregon Coast Overland Mail company again secured the contract over the Scott mountain route, and put four-horse coaches on this line. The company owned lines in California and Oregon 430 miles long, besides 600 miles in New Mexico and Colorado. It owned on the former routes 392 horses, 16 summer coaches, 21 winter stages, and two sleighs, or a total of 39 vehicles. Its quarterly expenses were $40,000, its annual toll $12,000; total expenses annually $172,000. The completion of the California and Oregon railroad has changed and lessened the mileage of stage lines in the

northern part of the state, although a few short lines from Yreka to surrounding points, and two longer ones to Linkville, Oregon, have not been affected.

The California Stage company dissolved in 1866, selling out their stock to various parties. The only worthy rival it ever had was the Pioneer company, whose line ran from Placerville to Virginia City, and from Placerville to the end of the Sacramento Valley railroad, to which I shall have occasion presently again to refer.

Taking up the subject of mails, *per se*, it will not be uninteresting to revert to the beginning of the mail system of the United States, of which California is a portion. The first postoffice of which we hear was opened in Boston in 1677, when John Hayward Scrivener was appointed by the court "to take in and convey letters according to their destination." A postal system was projected in 1692, but remained unorganized until 1710 on account of the sparseness of the population. In that year parliament directed the postmaster-general of the colonies "to keep his chief letter office in New York, and other chief offices at some convenient place or places in other of her majesty's provinces or colonies in America." The English postages were fourteen pence for a distance over 300 miles, the lowest being twopence for a distance of seven miles, and the revenue was unimportant, although the salary of Benjamin Franklin, who was appointed deputy postmaster-general for the colonies in 1753, was £600 for himself and an assistant. Under the management of Franklin the system was improved and made to produce an increase of revenue, and he was the first to propose running a stage and mail-wagon between Philadelphia and Boston once a week each way. In 1774 he was removed from office. The first postage stamp issued by the United States in 1847 bore Franklin's portrait engraved upon it.

The continental congress of July 26, 1775, provided

that a postmaster-general should be appointed for the united colonies, whose office should be at Philadelphia, with a salary of $1,000; and a secretary and comptroller were allowed with a salary of $340; and the power was given to suggest as many deputies as were necessary. A line of posts was provided for from Falmouth in New England to Savannah in Georgia, with as many cross-posts as the postmaster-general should think advisable. The deputies were allowed, in lieu of salary, twenty per cent of the postages collected and paid into the general postoffice annually, when the receipts were not over $1,000, and ten per cent of all sums above that amount. Congress at this session elected Franklin to the office of postmaster-general.

At the session of April 16, 1779, congress doubled the rates established in 1710, and on the 28th of December increased the rates "twenty prices upon the sums paid in 1775;" a very good way to stop all but the most necessary correspondence; but in May following the rates were again doubled. In December following it was provided that the postage on letters should be fixed at half the rates paid at the commencement of the war. In 1787 the postmaster-general was instructed to reduce the rates of postage twenty-five per cent, or as nearly as the state of the currency would allow.

The constitution of the United States conferred upon congress in 1789 the exclusive control of postal matters, and that body on the 20th of February, 1792, fixed the rate of postage on domestic letters as follows: For every single letter not exceeding 30 miles, six cents; over 30 and not exceeding 60 miles, eight cents; over 60 and not exceeding 100 miles, ten cents; over 100 and not exceeding 150 miles, twelve and a half cents; over 150 and not exceeding 200 miles, fifteen cents; over 200 and not exceeding 250 miles, seventeen cents; over 250 and not exceeding 350 miles, twenty cents; over 350 and not exceeding

450 miles, twenty-two cents; over 450 miles, twenty-five cents. Double or triple sheets were charged double or triple postage.

Letters continued to be charged according to distance rather than weight, and alterations were made in the rates from time to time. In 1799 mail carriers were authorized to demand one cent for each way letter delivered by them to the postmaster, and to demand two cents from every person to whom they delivered a letter on their routes between postoffices. In those days the mail was carried in a pair of saddlebags, or tied up in a handkerchief fastened to the horn of the carrier's saddle. As postal facilities increased, the people demanded a reduction in postal rates; often, too, they evaded the law, and sent their letters by private hand. In 1816 some changes were made in postage, six and a quarter cents being the lowest charge for a single letter under 30 miles; over 150 and under 400 miles, it was eighteen and three quarter cents; and over 400 miles, twenty-five cents.

In 1843 the legislatures of several states instructed their representatives in congress to labor for the adoption of some measures looking to a reduction in postage, and the postmaster-general, after an examination into the question, recommended some change, although not a radical one. A letter weighing half an ounce was in 1845 carried 300 miles for five cents; over 300, ten cents, and for every additional fraction of a half ounce, double these amounts. Printed matter was proportionately high, excepting newspapers, which were free for thirty miles, and only one cent within the state where published or one and a half cents out of it. Carrying by private hand was prohibited unless the postage had been previously paid. The postage on transient newspapers and circulars was raised to three cents in 1846–7; while to California and Oregon newspapers were charged four and a half cents, and letters to the Pacific coast via the isthmus of Panamá were charged forty cents. In

1849 transient newspaper postage was reduced to ordinary rates; and in 1851 a single letter of half an ounce weight was carried any distance under 3,000 miles, if prepaid, for three cents; if not prepaid, for five cents; and for any distance over 3,000 miles, except in foreign countries, six cents if prepaid, and twelve cents if not prepaid. Weekly newspapers were carried free within the county where published, with a quarterly charge of from five to thirty cents according to the distance outside the county, and other printed matter in accordance with this rate.

The postal department being still in an unsatisfactory condition as to revenue, further changes were made in 1852, when unpaid letters over 3,000 miles were charged ten cents, and newspapers under three ounces one cent, with an additional cent for each ounce or fraction thereof. The congress of 1854–5 reduced letter-postage to three cents for all distances under 3,000 miles, and ten cents for all distances over that, and all letters were to be prepaid. In 1861 all letters from any distance east of the Rocky mountains to any part of the Pacific coast were charged ten cents. The quarterly postage on newspapers and periodicals to subscribers, not weighing over four ounces, in the proportion of five cents weekly; and for transient publications one cent each. In 1863 the first regular division into first, second, and third class matter was made, and a uniform rate of letter postage at three cents, for all distances, was adopted. The law was again amended, in 1868, so as to allow weekly newspapers to be carried free in the county where published. By amendments made in 1872, 1874, 1875, and 1879 mail matter was reclassified, postal cards were introduced, and changes, immaterial here, were made. In 1883 letter postage was reduced to two cents, and newspapers were carried for one cent.

This rather prosaic statement is a necessary introduction to postal matters in California. From it we gather that previous to 1851 letters in California and

Oregon, brought by the way of the isthmus of Panamá, by which route the regular mail was carried, cost forty cents a single half ounce; and that from 1851 to 1855 the postage on letters was six cents, or double that if not prepaid; from 1855 to 1863 the letter rate to California was ten cents, after which it dropped down to three and then to two cents. These extraordinary variations were caused by the difficulty of making the revenue of the postal system pay its expenses, the secret being found to lie rather in cheap than in high rates, provided the facilities for rapid carriage are at hand, both these conditions favoring an increase of correspondence, and in a ratio greater than the additional cost.

The first mails in California were not carried by the postoffice department, but by military messengers, a semi-monthly government express, as it was called, being established by Governor Kearny between San Francisco and San Diego, beginning April 19, 1847. It was carried by two soldiers on horseback, starting on alternate Mondays, and meeting on the following Sunday at Dana's rancho, where they exchanged mails, and returned to the beginning of their routes in time for the punctual performance of their duty the following Monday. Letters and papers were carried free of charge. North of San Francisco there was no mail, and the settlers at New Helvetia, Sonoma, Napa, and elsewhere put in circulation a petition for the establishment of post routes. In August an express mail between San Francisco and Sutter's fort via Sauzalito, Sonoma, and other towns, as just mentioned, was established by Charles L. Cady, which did not continue for any long period for want of support.

The ship *Whilton*, sailing for the United States December 8, 1847, carried a large mail and many parcels, including back numbers of the *Californian;* and three weeks later there arrived the ship *Charles*, bringing what was considered a large mail in those

times. On the 15th of January 1848 an advertisement appeared in the *California Star* offering to send a letter express by land to Independence, Missouri, letters being charged fifty cents, and the California newspapers twelve cents. Agents were appointed to receive mail and express matter as follows: C. C. Smith, New Helvetia; Beasley and Cooper, Sonoma; Charles Weaver, Pueblo de San José; Taber and Hoyt, Monterey; and J. Temple, Ciudad de Los Angeles. An article on the "Prospects of California," six columns in length, was prepared for the *Star* by V. J. Fourgeaud, intended for distribution in the States, with the object of promoting immigration, and two thousand copies were sent east by this express, the price of transportation having been raised to double the amount advertised.

An opportunity to forward a mail free of charge was then offered by the military authorities, which despatched, April 17th, by the hand of Lieutenant Christopher Carson, the first overland United States mail ever carried from the Pacific to the Atlantic. It was the intention of the *Star* managers to have sent a second mail in May, and a third in June, but by that time the stirring events connected with the gold discovery had banished all such schemes. In the month of March another public-spirited citizen, Mr Buckalew, of the *Californian*, had offered to contribute one hundred dollars annually toward the support of a weekly mail between Sutter's fort and San Diego by way of Brazonia, Montezuma, Benicia, Napa valley, Sonoma, San Francisco, San José, Monterey, Santa Bárbara, and Los Angeles, to be sustained until United States post routes should be established, provided all letters and papers should be carried free. This philanthropic intention was rendered abortive by the excitement which followed soon afterward.

The first postoffices established in California were in the rooms of the quartermasters of the army; and Captain J. L. Folsom very obligingly ordered boxes

and other conveniences constructed at San Francisco. Where there were no offices, certain persons were designated as receivers of the mail, as W. W. Scott at Sonoma, David A. Davis at San Francisco, J. A. Sutter at New Helvetia, John Williams at Upper Sacramento, and William Gordon at Cache creek.

In December 1848 the *Star and Californian*, the two papers being now united, made complaint that the military mail to San Diego had been discontinued, and that there was no public means of communication, although business was large, and the country rapidly filling up. The hiatus in the service was accidental, and occurred on account of the reduction of the military force in the southern district. It was resumed in January, and continued twice a month until the government had established post routes from Sutter's fort to San Diego. General Riley's instructions were to have the letters and papers for different points made up in separate packages by the quartermasters of the posts where mailed, sealed, and addressed to the quartermaster of the post for which they were intended. Where no arrangements had been made for the transmission of mails, the letters and papers of citizens should be carried free of expense.

By act of congress of the 14th of August 1848 the postmaster-general was authorized to employ an agent to make arrangements for the transmission of mails to California from the States, as the whole country east of the great plains was lovingly called by the American population of the Pacific coast. The agent first to be appointed was William Van Voorhies, who arrived at San Francisco on board the *California* on her first trip out, in February 1849. A postmaster had already been appointed for this city, Samuel Y. A. Lee, being the first incumbent, who appears to have been superseded by the appointment of Mr Dallas, who declined, and the appointment of John W. Geary, who soon resigned, when Voorhies appointed temporarily C. L. Ross, a merchant, who suffered the

burden to be put upon him for the custom it brought to his store. That it was a burden is evident from the fact that the steamers at first brought about 6,000 letters and a large newspaper mail. This amount increased until in November 1849 as many as 30,000 letters were brought by one steamer, with a corresponding amount of other mail matter; and throughout 1850 this was an average monthly mail, although it was nearly doubled some months. The Sacramento *Placer Times* of April 29, 1850, says that "the steamer *Panamá* on her last trip to San Francisco brought upwards of ninety-five mail sacks, each containing an average of two bushels of letters and mailable matter."

On the 30th of March 1849 the postmaster-general recalled the commission of Van Voorhies, and appointed R. T. P. Allen agent for the Pacific coast, who arrived on the 13th of June, being instructed, as his predecessor had been, to establish offices in San Diego, Los Angeles, Santa Bárbara, San Luis Obispo, and Monterey, and like his predecessor he failed to do so. Voorhies accounted for his failure by stating that the *California* was short of coal, and could not stop at San Diego and the other places named, the only mail delivered being at Monterey, to William G. Marcy, who received and distributed it, "without, however, consenting to enter permanently upon the duties of the office" of postmaster. "No one in California seems at present disposed to take upon himself the trouble of public office," wrote the agent. He succeeded in persuading Charles W. Hayden at Benicia, Henry E. Robinson at Sacramento, William Hopkins at Stockton, Gilbert A. Grant at Vernon, John T. Little at Coloma, L. W. Boggs at Sonoma, and J. D. Hoppe at San José to accept appointments as postmasters. He appointed J. Ross Browne special agent to San Diego, who fell ill at Monterey, leaving that place still unsupplied. The letters for San Diego were sent to Monterey, where the military express took charge of them.

It is entertaining reading, the comments of the postmaster-general on California affairs. After reproving the agent for disregard of instructions in neglecting the southern portion of the country, and for failure to report fully, he takes him to task for extravagance, some instances of which are enumerated. For fourteen weeks' transportation of the mail from San Francisco to Sacramento by water, and thence to Coloma on horseback, the department was called upon to pay $9,800, or at the rate of $36,000 per annum. For the transportation of the mail from San Francisco to Monterey, and from San Francisco to Stockton, for eight weeks, at $4,000, the expense was at the rate of $26,000 per annum—"an amount," says the official, "that is believed to be vastly beyond the net proceeds of those offices, to which net proceeds you are instructed to limit the cost of your mail arrangements." As if anybody in California at that time would have carried the mails for the postage! John T. Little, who was appointed by the postal agent postmaster at Coloma, says of his experience: "It cost me about $10,000, for I had to hire a clerk at $400 a month, and give the office rent, and in addition to carry the mails at my own expense from Sacramento." Subsequently he spent $5,000 more in the vain attempt to secure the payment of this claim. Congress had not at that time established any mail routes in the interior, and it was certainly rather hard lines to be required to support a mail by order of an agent without a contract.

Another mail carrier with a claim against the government was Jesse D. Carr, an attaché of the custom house in San Francisco, who was given eight mail-bags by the postmaster at New Orleans, which he brought through as freight at his own expense, thereby saving the department the New Granadan postage and rescuing the mail from the wretched transportation afforded by that government on the isthmus of Panamá.

From the reports of the mail agent, the newly

appointed postmaster, Jacob B. Moore, and other persons likely to observe this matter, the Pacific Mail Steamship company, as well as the New Granadan government, was recklessly negligent of this important trust. Mails were sometimes returned, through carelessness, after reaching Panamá. They were thrown ashore, and left exposed all night; the bags were sometimes wet, and occasionally broken open. All this, in addition to the necessary slowness of correspondence by the sea route, was exasperating in the extreme to persons anxiously waiting for news from home, or for commercial letters, and the suggestion of General Agent Allen that a special agent should accompany the mails on this route was a very proper one.

The first great mail for the mines arrived at Sacramento by United States mail packet—that is, by a sailing craft—and was carried by expressmen to the several camps where it was due, at $2.50 for letters and $1 for newspapers. This packet was a weekly line, and the expressmen had time to make their rounds between arrivals. The mail from San José to Santa Cruz was carried weekly in the pockets of Mr Younts, by contract, at $3,500 per year. As soon as steamboats were put upon the Sacramento and San Joaquin rivers, the mails for the northern and southern mines were transported by this means. The first daily mail between San Francisco and Sacramento was carried by the steamer *Senator*, June 28, 1850, a contract being made with Captain Blair for the performance of this service three times a week, the *Hartford* alternating on the intermediate days.

The Sacramento *Transcript* of January 14, 1851, remarks that the mail arrangements of the government were bad, a large number of persons having no mail facilities, and some having to travel fifty or a hundred miles to a postoffice. Above Marysville there was no post route, and Butte county had not a single postoffice within its limits It was mentioned

in congress that the laws regulating postal service were ill adapted to the condition of this country. Letters sent to meet persons travelling by the land route, if treated as dead letters were required to be treated at the end of the second quarter, would be sent back before the persons arrived; besides which the pecuniary means of the department were insufficient to bear the expense of sending them back; and, moreover, the price of labor and cost of rent and transportation in California were so great as to be entirely beyond the provision made for the postal expenses, and congress was urged to give its attention to this subject.

The number of letters received and sent by the Panamá route during September 1850 was 112,085, and the postage thereon was $44,385.60. In the following September the number of letters received and sent was 118,934, the postage on which was only $12,854.81, on account of the reduction made by the postal law of 1851. The whole amount collected by the department from the postages accruing from the ocean mail to California, from December 31, 1848, to December 31, 1851, was $899,456.26, while the expense had amounted to more than double that sum. The service by way of Panamá was increased to semi-monthly in March 1851, and the compensation was raised seventy-five per cent, making the annual cost of the ocean mail about $300,000.

The annual transportation of mails in California in 1850–1 was 30,498 miles, at a cost of over sixty-five cents per mile, or about $20,000. In July 1851 the service was increased to 66,960 miles at a cost of $40,441. Of this service over 6,000 miles was performed in steamboats, 5,000 miles in stages, and 55,650 by means not specified. It certainly seemed that a good deal of money was required for a trifling amount of service. El Dorado county, with a population of 25,000, received but one government mail a week until after the 1st of February 1851, when the

service became tri-weekly. Grass Valley had no postoffice at all before 1851, and Sacramento had no communication with the capital, San José, except by a slow mail coach, and expresses performed most of the business. It was notorious that at one session of the California legislature the express bills which the people had to pay amounted to $25,000. The express companies had by their great enterprise obtained so strong a hold upon the business community, that their encroachments upon the postal revenue seriously reduced it, and occasioned a protest by the department.

In July 1852, 60,000 letters were carried on one steamship, the *Oregon*, from which it would seem that the postal department had small reason for complaint. On the other hand, the people had good ground for displeasure when, as in some instances, the San Francisco mail was sent to Sacramento, or back to New York. The legislature passed numerous resolutions on the subject of mails, and their representatives in congress faithfully presented them; but improvements in postal facilities and the extension of routes went forward very slowly, and in some counties not at all. As late as 1855 it was complained by the citizens of San Luis Obispo that they had not received eight mails in eighteen months, and Klamath and Siskiyou counties none at all. That these omissions were due to the cost of transportation, with the inadequacy of the revenue to meet the expense, was understood; yet Californians believed and maintained that the government owed something to California beyond what it could get out of it in revenue during its period of immaturity. It was also true that during that period when forty cents was the postage on a half-ounce letter to and from California, the government made money out of this branch of the postal service, as witness the following table from the *United States Postal Guide and Official Advertiser*, for August 1850.

DATE.	SENT.	RECEIVED.	TOTAL.
1848—December	$ 553.08	$ None	$ 553.08
1849—January	None	119.37	119.37
February	507.78	None	507.78
March	947.17	103.42	1,050.59
April	2,536.17	750.32	3,286.49
May	4,400.82	727.20	5,128.02
June	5,435.20	1,807.88	7,243.08
July	None	None	None
August	8,984.17	2,129.79	11,113.96
September	4,025.79	4,679.56	8,705.35
October	5,265.31	5,427.07	10,692.38
November	6,604.67	6,131.47	12,736.14
December	10,140.66	6,244.76	16,385.42
1850—January	13,164.09	6,401.84	19,565.93
February	11,981.77	7,128.54	19,110.25
March	11,811.23	11,270.05	23,081.28
April	12,316.26	11,841.41	24,157.67
May	13,688.67	18,028.04	31,716.71
June	16,001.82	10,440.67	26,442.49

The number of letters carried by the California mail steamers in August 1850, was 85,000, and according to the same authority, there was an average of eighty cents postage on each letter, at which rate the correspondence with California previous to the reduction of postage in 1851 amounted to $816,000 or over $200,000 more than the cost of transportation. Only New York and Massachusetts paid more into the postal revenue than California.

In the California *State Register* for 1857 I find some further figures in later years, as thus:

	NUMBER OF LETTERS.	NEWSPAPER POSTAGE.	LETTER POSTAGE.	TOTAL POSTAGE.
Year ending June 30, 1852	1,495,537	$	$	$183,052
Year ending June 30, 1853	2,707,533			263,137
Year ending June 30, 1854	2,958,681	34,821	286,126	320,950
Year ending June 30, 1856	2,365,902	34,638	288,210	322,848

The year 1855 is not included, as during a portion of it the postage was six cents, and during another portion ten cents. According to the above authority, the receipts for the year ending June 30, 1855, amounted to 234,591, being a falling off of $86,350 by

the increasing of postage four cents on a single letter. The cost of transportation in 1857 in the state was $127,515, and the length of the postal routes 2,332 miles.

As many postal transportation matters come under the heads of Pacific mail, Overland mail, and kindred subjects, I will only add here that in 1869, when the transcontinental roads began carrying the mails to and from the Atlantic cities, there were 469 post-offices in California; the mail routes covered 7,384 miles, 865 of which were steamboat routes, costing $62,000 annually; 775 were railroad routes, costing $196,500, and leaving 5,708 miles to stage and other means of transportation. The number of miles travelled annually in the postal service was 3,200,000, and cost the department $673,358. Again in 1882-3 the number of postoffices reported was 971, of which 154 were money-order offices. The revenue amounted to $1,241,600, and the expenses to $1.518,619, leaving the state in arrears $277,000 for postal service. Of the whole, $930,940 was for transportation, four-fifths of which was performed by stage lines. The rapid increase in the population of the state since 1882 is bringing up the postal revenue in a proportion greater than the increase in expenditure. The report of the San Francisco office for 1879 was that the gross receipts for that year were $427,492.90, and the net receipts $339,085.31

Congress in 1850 made an appropriation of $100,000 for a custom-house, federal court-room, and post-office at San Francisco, which was increased in 1851 to $400,000. The building then erected has become unfit through age, the increase of business and the growth of the city in other directions, for the uses for which it was constructed, and provision has been made by congressional appropriation for a new post-office building on a more central site. Many improvements have been made in the postal service, some of which originated in the needs of the Pacific coast,

which are noticed elsewhere. The postal service in all the principal towns is excellent, and in San Francisco is of the highest order. The free delivery system, which was inaugurated about the close of 1869, in the saving of time and money to the citizens and in maintaining order at the general office is a boon to all. The increase in letters delivered in 1878, as shown by the statistics, above those delivered in 1870, showed that the business had trebled in ten years, and while much of this increase must be set down to the growth of population, a large part, also, is the result of the system itself, which makes correspondence so easy as to be freely indulged in by all classes.

The San Francisco office in 1880 employed 70 clerks and 58 carriers, who handled monthly about 1,100,000 letters and postal cards, besides the newspapers and third and fourth class matter, which made 1,500,000 packages to be handled in the same time. The mail-boxes on the streets numbered 257, and those in the business portion of the city were emptied seven times each day. The number of city letters passing through the office was about 228,000 monthly, and the number despatched in mail-bags numbered on an average 30,000 daily, one-third of which are sent to the Atlantic states. The people of San Francisco sent from 900,000 to 1,000,000 letters every month and received 700,000. The foreign mails were large—from 12,000 to 15,000 letters from Australia; 8,000 to 10,000 from China and Japan with the arrival of every steamer, besides the Mexican and the English mails. The amount of exchange done in money orders was at the rate of $3,000,000. Such was the extent of the postoffice business ten years after the opening of the Pacific railroads; its volume should be twice if not thrice as great at the present time. Yet there are those who now receive their mail with their morning paper, and several times a day thereafter, that have stood for hours in a line at the postoffice in the early days, or travelled a

day's journey to a postoffice, or willingly paid the faithful expressman five dollars for bringing him a letter to his cabin in the hills, and yet look back regretfully to the times when they revelled in the excitement of their new life, and laughed at their privations. There is pleasure in pursuit which makes possession tame.

The actual cost of mail transportation in and to California would be difficult to ascertain, and is not a matter of interest here. The variety of modes of carriage, of length of routes, with other differences of circumstance, complicates the subject; and it might be added that the special favor shown contractors on particular routes during some periods is bewildering to the accountant. That this favoritism has been shown on both sea and land routes is a matter of history, and that representatives and senators at Washington were concerned in them is well known, the scandal of the "star route" service in 1878 being still fresh in the people's remembrance. This service concerned only land routes and was described under the head of "celerity, certainty, and security" service. Contracts were taken by eastern men for routes on the Pacific coast, at reasonable prices, say $4,000 for a tri-weekly mail over a route 122 miles long. The route was extended half a dozen miles, and the pay increased to $22,000. Another daily route of 304 miles, which was bid off for $29,000 a year, was increased to over $54,000, by adding two postoffices and increasing the speed, which celerity was not required by the offices on the route. But these contracts, by whomsoever contrived, were not comparable to that which allowed a San Francisco firm at the rate of $1,750,000 for performing less than the same service which had been performed for $350,000 by another contractor during the previous four years. These are some of the incidents of our postal history which are not to the credit of the department, and render it difficult to generalize upon its expenses.

The additional facilities to transportation since the railway service was established have increased the cost, although at the same time augmenting the revenue. Postal cars, with their mail clerks at good salaries, are a large item in transportation. Carriers' salaries, and the transfer of mails to and from steamboats and railroad depots, make another large amount, added to the route contracts. In 1876 the Central Pacific alone had postal cars on its line. The saving in time effected by the system amounted to twenty-four hours between New York and San Francisco. The exchange between these cities was estimated at $150,000,000 annually. Assuming the rate of interest to be seven per cent, this saving of time would amount in a year to several hundred thousand dollars.

Among the annual expenses of the postal department for 1867 were the following items: For overland mail and marine service between New York and California, $900,000; steamship service between San Francisco, Japan, and China, $500,000; steamship service between San Francisco and the Sandwich islands, $75,000; steamship service between San Francisco and Portland, $25,000; land service between San Francisco and Portland, $196,000.

The Central Pacific railroad began carrying the eastern mail in 1867, and the following table shows the amounts paid to the company for transportation for six years, during three of which it was unfinished.

Fiscal year ending June 30, 1867 (for May and June)	$ 7,289.83
Fiscal year ending June 30, 1868	82,954.65
Fiscal year ending June 30, 1869	226,109.25
Fiscal year ending June 30, 1870	272,075.00
Fiscal year ending June 30, 1871	283,855.00
Fiscal year ending June 30, 1872	283,855.00
Total	$1,156,138.73

This was a saving of $643,579.55 in the expense of carrying the transcontinental mail by stage and steamship, as previous to the opening of the railroad, as well as a very great gain in the character of the service. In 1882 the railway service, including postal

cars, for California, cost the department $486,193; the star route and steamboat service added brought transportation on routes up to $1,094,464. The whole route expense of transportation in the United States was $18,881,052, making California chargeable with a large per cent of the whole, besides her share in $3,965,060 paid to agents, clerks, and messengers connected with transportation.

Many pathetic paragraphs have been written touching the subject of mails in California in the fifties, of the eagerness of the waiting throngs on the arrival of the steamers, and of the bitter disappointment of those who received no news from home, after perhaps months of waiting. Those days are no more; they are almost forgotten, so quickly heal wounds in healthy young bodies. Will the systems of this period also have become obsolete in another forty years?

It must not be overlooked that the Californian mind, during a long period when everything but cattle and immigrants arrived by sea, frequently reverted to the possibility, and especially to the desirability, of a transcontinental mail and passenger wagon line.

Inspired by the great migration of 1849, some St Louis men undertook to establish such a line, and made an experimental trip, charging $200 fare. Stages were furnished for over 120 passengers, but they did not find the journey a pleasurable experience, judging from the description of it published in the St Louis *Republican*. "Just think," says the writer, "of 120 persons from all parts of the world thrown together for the first time—lawyers, doctors, divines, gentlemen of leisure, clerks, speculators, et cetera, tumbled together, and forced to stand guard, cook, carry wood and water, wash dishes, and haul wagons out of mudholes!" As nothing was ever heard of a second undertaking of the kind, doubtless both the public and the contractors were satisfied with this effort.

The same congress which admitted California into

the federation of states established certain post routes within its boundaries, and also one from San Francisco to Fort Bridger and back, via Salt Lake City And as letters must have been sent by military express to forts Kearny and Leavenworth, it might be said a mail could be carried across the continent, although I do not know that it ever was so carried.

The Fort Bridger mail route was not let until 1851, when the contract was taken by A. Woodard and George Chorpening, afterward mail agent at Salt Lake City, for $14,000. Their route commenced at Sacramento, and ran via Folsom and Placerville, and crossing the Sierra by the immigrant road of 1849, passed through Hope and Carson valleys, touching the Mormon settlement at Genoa, and traversing the forty-miles desert to the Humboldt, followed that river to the head of the valley, where it turned a little south of east, taking the Hastings cut-off to Salt Lake City, a distance of 750 miles. No wheeled vehicle was used in this service, the mail being packed on muleback, and carried each way once a month.

Between savage men and savage weather the mail-carriers suffered severely. In the autumn of 1851 Woodard and two guards were attacked and killed by Indians at Gravelly ford in Humboldt valley; but Chorpening continued to carry the mail. The successor of Chorpening was Ben Holladay, who joined Chorpening in a contract obtained in 1853, by which they were required to employ covered wagons and four-mule teams, which were used for passenger conveyances as well, during that portion of the year when people could be induced to travel overland. Very different was this lonely and weary journey from the crowded, gay, and indolent voyage by sea. In summer the battle was with the ever-injured aborigine, who sought to avenge public wrongs upon private individuals; and in winter it was with swampy roads, swollen streams, freezing blasts, and blinding snow-storms that the war had to be waged. When many

successive winds had filled the mountain passes, then only valor and snowshoes won the day.

The route of the Salt Lake mail was, as I have said, by the way of the Carson pass, which being untravelled in winter could not be kept open. The mail-pouches therefore had to be carried on a man's shoulders over the mountains, the carrier supporting himself on the deep mass of snow by means of snow-shoes made in the Canadian or basket form. Fred Bishop accomplished the first trip in this manner in the spring of 1853, alternating thereafter with a man named Drit.

On the 1st of November 1853 John Adams and Alphonso Borland left Salt Lake City in charge of the mail, which in the winter was carried on mule-back. About 120 miles out from that place they encountered a snowstorm of great severity, which covered the ground to a depth of two feet. At Goose mountains the snow changed to hail and sleet, with such bitter cold that it was necessary to whip their mules at intervals during the night to save them from perishing, and Borland's feet were frozen. But for the artemesia which cropped up through the snow, their animals must have starved to death. The men themselves lived for the last six days before arriving at Carson valley on strong coffee alone, their provisions being exhausted. On the Humboldt desert one of the mules had to be abandoned, and Adams' feet were frozen. At Ragtown, a few miles from Carson valley, Indians fired on the men, who, however, were not hit. Arrived at Genoa, they were compelled by their condition to remain two weeks, at the end of which time they resumed their journey, accompanied by two other men. At Slippery ford one of these men became exhausted, and his companion remained behind to take care of him until assistance could be sent. Borland and Adams, however, pushed forward, encountering a flood in Lake valley, and being nearly cut off by it. They arrived at Sacramento with the mail in January,

having been two months on the road from Salt Lake City.

The crossing of the Sierra in winter was a feat not often undertaken, except by the mail-carriers, and for several winters not at all regularly by them. George Pierce was one of the few men who ventured upon these journeys; but the most successful and fearless of the winter mail-carriers was John A. Thompson, a Norwegian. Thompson was but ten years old when he immigrated to the United States, but there was in him the hardihood brought from the frozen plains and icy fjords of the north of Europe. The shoes which he provided for his journey were ten feet in length, six inches wide, one and a half inches thick, turned up at the front end like a sleigh-runner, and made of fir wood. Shod in this manner, he accomplished the journey of ninety miles between Placerville and Carson valley in three days, carrying from sixty to eighty pounds, and the provisions for his sustenance on the way. The trip from Genoa to Placerville he made in two days, the grade being down more than up in this direction. Overcoat and blanket he eschewed. When night came he looked for a dead tree, and making a large fire, spread spruce boughs upon the snow and stretched himself upon this fragrant couch, and with his feet to the blaze and his face to the stars slept soundly and safely. An excellent woodsman, he never lost his way, needing no compass and no other guide than those which nature spreads upon the rocks and trunks of trees. In his explorations among the mountains he discovered the lower route to Carson valley which was known as Johnson's road, and became incorporated in the survey of the stage road which has already been described.

The difficulties in the way of an overland mail were certainly disheartening, but withal such was the faith of the people in their manifest destiny that a possible failure to accomplish their wishes was never for a moment admitted. California must have wheeled

and other daily communication with the older states, must be put upon an equality with them in every way. Numerous meetings were held to consider the ways and means of procuring a mail, telegraph, and in time a railway line to the States. Among other plans advocated was that of a grant of land from congress to a stage company between St Louis and Sacramento; nor were Californians alone interested in the discussion, which engaged the brains of St Louis as well. Congress was to be asked to establish a line of posts for the protection of travel, and to aid in the construction of a telegraph line.

In 1855 William N. Walton made a proposition to the California legislature to establish a regular mail line between St Louis and the Pacific coast by means of dromedaries, an offer which that body was not empowered to accept.

An elaborate calculation was set forth in the Sacramento *Union*, making the cost of putting on a daily stage to the Missouri river $750,000, and its monthly expenses $57,000. It was estimated that each daily coach would carry nine passengers, aggregating 480 a month, which at $150 would bring in $72,000, or a monthly profit of $14,500. It was even suggested that one coach daily would not accommodate the passengers who would prefer land to sea travel, and the California Stage company was requested to look into the matter. Meanwhile James Birch, president of that corporation, was doing what he could to affect legislation in Washington, and secure the desired government aid, which efforts probably had due influence with congressmen and senators; but the times were not yet ripe for the settlement of some grave questions involved in any scheme of transcontinental transportation, even of the mails, and the mud-wagons of Chorpening and Holladay still continued their journeys to and from Salt Lake City only.

Their success in performing their contract year after year, summer and winter, had its weight afterward as

a guaranty of the feasibility of the central route, which was so long fought against by southern politicians. Chorpening, the former contractor, in 1858, the year following the construction of the Placerville and Carson road, obtained a contract for carrying a semi-monthly mail to and from Salt Lake City, where it connected with the regular line from that place to St Joseph, Missouri; and a semi-weekly line of stages was run from Placerville to Genoa, carrying the express mail, by Lewis Brady & Co., successors to Crandall's Pioneer line, put on in 1857.

The new Chorpening contract was felt to be an important step in the right direction. It was a transcontinental mail, if only semi-monthly. The first stage for the east under the new arrangement left Placerville June 5, 1858; and the first from the east with direct mail connections arrived in Placerville July 19th, at ten o'clock in the evening, when it was received with fireworks, speeches, a balloon ascension, and every manifestation of joy.

It is not to be inferred from these rejoicings that travel had suddenly been made rapid, easy, or regular. There still remained the great distance, the unsettled wilderness, hostile tribes, and inclement seasons—dangers, indeed, by flood and field. On the 20th of August the mail party, consisting of the conductor and two guards, with a two-horse covered wagon, were attacked while encamped near the first crossing of the Humboldt, by a party of Shoshones, who secured the horses, leaving the men without the means of proceeding, and forcing them to abandon the mail, which, with the wagon, was destroyed by the Indians. Taking their arms the men escaped to the mountains and finally made their way to Carson. In September troops were ordered out from Camp Floyd to protect the mail line. An Indian agent was also sent to coax the Shoshones into peace, and for a brief period his efforts prevailed. In January 1859 the mail arrived from the east in seventeen

days, with the president's message, and letters came through in ten days less time than by sea. On the 23d of April there were 500 pounds of mail matter sent east by stage. In June General Johnston gave instructions to J. H. Simpson, of the topographical engineers, to explore the great basin with a view to finding a direct wagon route from Genoa in Carson valley to Camp Floyd. In this reconnoissance Simpson was assisted by Reese of Genoa and other Mormons, and the mail route was several times altered. The old Humboldt immigrant route was 854 miles long; a route established by George Chorpening through Ruby valley, 709 miles; and the Simpson survey, which was adopted in 1860, was 565 miles. This route called the central, to distinguish it from the Humboldt and San Bernardino routes, was very nearly due west from Camp Floyd, and was first explored for more than half the distance by Howard Egan, a Mormon cattle-driver in the service of Livingston and Kinkead, who afterward became a mail agent. The Simpson route bore further south, running from Genoa northwest a short distance, then east across the alkali desert in Churchill county, Nevada, crossing Reese river at Jacobsville, thence northeast to Ruby valley, and east by Hastings' pass and Eagan cañon, and around the south end of Salt lake to Salt Lake City. In September 1859 stations were prepared on the new route to which the stages were removed the following winter, and in 1860 a four-horse coach was put upon the line. In the winter of 1859–60, Thompson and Child started a stage line from Placerville to Genoa, using sleighs from Strawberry valley, and keeping the road open all winter for the first time. In the spring the Pioneer line was purchased by Louis McLane, and transferred to Wells, Fargo & Co. in 1861, who then ran the entire distance to Salt Lake City, carrying passengers and express matter in excellent style. A. J. Rhodes ran an opposition in 1860 between Placer-

ville and Genoa, making quick trips and reducing the fare from $40 to $20, but was bought off, binding himself not to start another opposition. The Pioneer line was thenceforth the only worthy rival of the California Stage company, which it survived. Its coaches were of the best, its six-horse teams of the finest and truest, and its conductors most accommodating. The time from Sacramento to Virginia was about twenty-six hours and the greatest punctuality was observed. The dust which, owing to the heavy freight teams upon the road after the mining discoveries, would have been intolerable, was kept down by a daily saturation from a street sprinkler kept going in advance of the stage. Surely such consideration was never shown elsewhere by a stage company!

Frequent petitions to congress for a daily transcontinental mail produced at last this result, that in March 1857 congress authorized the postmaster-general to contract for the conveyance of the entire letter mail from such point on the Mississippi as he might select to San Francisco, for six years, at a cost not exceeding $300,000 per annum for semi-monthly, $450,000 for weekly, or $600,000 for semi-weekly service, at the option of that official. The service should be performed in good four-horse coaches or spring wagons suitable for the conveyance of passengers. Contractors were granted the right of preëmption to 320 acres of public land at each point necessary for a station, not nearer together than ten miles, and not mineral lands. The time allowed for a trip was twenty-five days, the service to commence within one year after the signing of the contract. Among the bidders was James Birch of California.

On the 2d of July following a contract was made with John Butterfield of Utica, William B. Dinsmore of New York city, William G. Fargo of Buffalo, James V. P. Gardner of Utica, Marcus L. Kinyon of Rome, Alexander Holland of New York city, all of the state of New York, and Hamilton Spencer of

Bloomington, Illinois, under the name of the Southern Overland Mail company, at $600,000 per annum to perform the semi-weekly service as required by law on route No. 12,578, or from St Louis, Missouri, and Memphis, Tennessee, and converging at Little Rock, Arkansas, and thence via Preston, or as near as found advisable, to the best crossing of the Rio Grande above El Paso, and not far from Fort Fillmore; thence along a new road being constructed under the direction of the secretary of the interior to Fort Yuma, and through the best passes and along the best valleys to San Francisco. Butterfield, president of the company, gave his name to this route. It swung to the south to connect with local lines in New Mexico, and bring their mail for California without additional cost to the department.

Before he perfected his arrangements, which required about a year, Richer, formerly a Mississippian, took a contract to run a line of mail stages from San Antonio to Indianola, Texas, the terminus of the Southern Steamship company's line of steamers from New Orleans. About the same time G. H. Giddings took a semi-monthly mail contract from San Antonio to El Paso, which was extended by the aid of Isaiah C. Woods' horse-train to San Diego, the whole route costing the government $146,000. The connection of these lines from New Orleans formed what was known as the southern route to California. It was patronized to some extent by passengers from the southern states, who paid a fare of $200, which included meals. In 1857 the California portion of the route was let to James L. Birch of the California Stage company, who died in Texas in July of that year.

The schedule time from San Antonio to San Diego was thirty days. The road was stocked with 400 horses and 25 coaches, employing 75 men. The first mail from San Diego east started August 9th, under the care of R. W. Laine. The first from San Antonio left on the 31st, and arrived in thirty-four days at

San Diego, four days over time, notwithstanding congress had appropriated $50,000 to improve the road west of Albuquerque.

These two contracts interfered with the continuity of the Butterfield route, which was prohibited by contract from duplicating the service, or at least the cost of a service already established. From Fort Yuma to Los Angeles the Butterfield route was sole, but from Los Angeles to San Francisco it again duplicated the route by sea from San Diego and Los Angeles.

The first Butterfield coaches left St Louis and San Francisco respectively on the 15th and 16th of September 1858, making their trips on schedule time. The first coach from St Louis arrived in San Francisco October 10th, and the following evening a mass-meeting was held in Music hall to congratulate the public on the event, and to declare the approaching freedom of the state from that Old Man of the Sea, the Pacific Mail. This is only the beginning, said the orators; now it is semi-weekly, soon it will be daily. Thus was inaugurated the first transcontinental mail and passenger line on which the travel was continuous, by night as well as day, or supposed to be so, although at Yuma and El Paso there was an interruption where the former line took up the mail or relinquished it to the Butterfield line. Practically it was all one, and the longest on the continent, being 2,700 miles in extent, passing through Missouri, Arkansas, Arizona, and California. In December 1859 the president's message was brought through in less than twenty days.

The coaches used on it were of the Troy and Concord make, celebrated for their comfort and excellence. Nine inside passengers were a complement for a long journey, but on short routes there might be a dozen on the outside, including the driver and guard; and with this number they frequently left San Francisco,

dropping off some at San José and other points until only the inside passengers remained.

At Los Angeles the company had a depot covering considerable space, and occupied by stabling, blacksmith shops, dormitories for their employés, sheds for their coaches, feed-stores, harness-rooms, and agent's office, all built in a substantial manner of brick, in the most convenient form. At every station there was kept an abundant supply of forage, and experienced men had charge of the stock.

It was not a little exciting to watch the start of a fresh team. The passengers were seated, and the reins handed to the driver on the box before the traces of either team were fastened, so that he had them all well in hand by the time this was done. The grooms stood back, and with a bound away dashed the gay equines, as if a mad gallop of a dozen or more miles were only a frolic to be enjoyed. Four horses sufficed for a team where the road was neither sandy nor miry, and where it was heavy from any cause another pair was added. In the same manner coaches were on some portions of the route changed for Concord six-passenger wagons, very roomy and comfortable. Eating-stations were provided; and, in short, a vast amount of money was expended in preparing this line for business, from the gulf of Mexico to the bay of San Francisco, and in a period of eighteen months it failed to arrive on schedule time only thrice. During all that time, through summer heat and winter cold, under scorching suns and through tempests of rain, sand, or snow, the Butterfield wheels had never ceased to roll day or night.

Much as the people of California had clamored for better mail facilities than were afforded by a monthly or semi-monthly mail by sea, when this line was established they were at first slow to encourage the enterprise, keeping to their sea-voyages and semi-monthly mails, and even preferring to send a letter by express to trusting it to the mails at all, notwithstanding the

express went by the same conveyance. The total of all letters sent and received by the Butterfield route in October 1858 was 2,509; in October 1859 there were 46,000; but in March 1860 there were 112,465 sent and received, showing a growing confidence. The total postages by this route from the commencement to the end of March 1860 amounted to only $71,378. By the San Antonio line the postage for six months footed up but $751; and by the central, monthly line, for nineteen months, the sum total was $865.

The press of the state made a fairly good effort to change the public drift, and doubtless would have succeeded sooner but for the opposition of the populous portion of the state to the southern route. It was contended in congress by a portion of the California delegation that the central should be made a daily mail line, for two reasons; first, because it was 900 miles shorter; second, because it was much cheaper. The ground had been argued over a good many times, and the Butterfield route was barely established when senators repented having voted $600,000 annually for a mail line which travelled for hundreds of miles over a trackless waste, and squabbled in no amiable tone over the demands of California, asserting in March 1859 that $10,000,000 had been already appropriated for deficiencies in the post-office. But the Pacific coast senators, Lane of Oregon and Gwin and Broderick of California, held fast by their positions, Lane to get a northern mail route, Broderick the central one, and Gwin all. He could not go against any particular route, and took the liberal view, and the correct one, that the way to settle up the interior of the continent was to put on as many stage lines as possible.

In the wordy war over the Pacific coast service it was shown that for the two southern lines, the San Antonio and San Diego, and the Butterfield, the government paid $800,000; for the St Joseph and

Placerville line, $120,000; and for a monthly service between Kansas City and Stockton, via Albuquerque, where it connected with a line to Santa Fé, $80,000, or a total of $1,200,000 for mails to California, exclusive of the sea service, which cost $738,000 per annum; and yet the best that had been obtained was a semi-weekly service. The house of representatives was willing to make appropriations, but the senate was not, and the postoffice appropriation bill for 1860 failed on the last day of the second session of the 35th congress on account of the last of thirteen amendments made by the senate, which the house rejected. It was one of those quarrels so frequent in those times, whose motive was not to be found in the thing itself, but in sectional jealousies. Mail routes it was well understood would lead to telegraph and railroad lines, and both north and south desired to have the first Pacific railroad. So far the south had secured the longest mail line and largest appropriation; but the failure to make the customary provision for the expenses of 1860 deprived the victors of compensation and the people of California of a complete service. An offer had been made by Butterfield to substitute a daily service, on a schedule of fourteen days from Memphis, by changing his route to one more nearly on the 35th parallel; and after the successful transportation of the transcontinental mail for eighteen months, notwithstanding the neglect of congress, it was hoped that this proposition might be entertained.

The Stockton mail might be considered as another southern route, both because it took a southern course, and because it was the bantling of the chivalry element in the southern mines. The first mail over it arrived in November 1858.

The debates in the 36th congress over California postal privileges were quite as acrimonious as at the previous one. The Butterfield route, which had narrowly escaped being made a weekly instead of semi-weekly line, if not abrogated altogether, and only

retained its original contract by the failure of the preceding congress to take any action, was again made the subject of contention. Down to this time the mail stages had carried letters only—newspapers and all printed matter going by sea. In March 1860 the house of representatives passed a bill and sent it to the senate, inviting proposals for carrying the entire mails to and from California, either daily, weekly, semi-weekly, or tri-weekly, the letters to be carried in twenty days. Proposals were also invited for transporting the mails by ocean routes, from New York and New Orleans in the same time—the Pacific Mail contract expiring July 1st. Gwin, who was on the committee on postoffices and post-routes, reported a substitute on the 23d of March, directing that the mail be carried weekly from St Joseph to Placerville in twenty days, semi-weekly or weekly between St Paul and The Dalles, and that the Butterfield route should be transferred to that between San Antonio and El Paso.

Three days afterward he reported a second substitute, proposing a tri-weekly service between St Joseph and Placerville for the first year, time twenty days, at $600,000, and a daily service after the first year at $800,000 per annum, carrying only matter on which letter postage was paid. On the 10th of April Gwin reported an original bill providing for a semi-weekly service over this route in twenty days, at $462,000; tri-weekly, at $600,000, or daily at $800,000, at the discretion of the postmaster-general. It excluded all franked matter from the mail, and made the postage on letters to the Pacific ten cents a single rate.

In the mean time Senator Hale of New Hampshire had offered a substitute bill providing for carrying the entire mail tri-weekly from St Louis to San Francisco over the Placerville route, in twenty days, for the first year, at $600,000; the contractors to supply Denver and Salt Lake City weekly without any

extra compensation; and after the first year a daily mail should be carried in like manner for $800,000 per annum. It provided also for a tri-weekly mail between New Orleans and El Paso, via San Antonio, time ten days, carrying the entire mail, franked documents and all, for $300,000 per annum. The Butterfield service east of El Paso was to be dispensed with, and from El Paso to San Francisco to be increased to a tri-weekly service, which should be performed in ten days, and for which $300,000 should be paid, with an advance of $100,000 damages for the alteration of their contract. This route was to connect with the New Orleans and San Antonio route on the east end, and the company had the privilege of connecting with steamers on the Pacific. The contractors were allowed to forward printed matter semi-monthly on a schedule of thirty days. This bill also provided for a daily service in four-horse coaches between Sacramento and Portland, at $100,000 per annum, all of which was to go into effect on the 1st of July. Senator Latham, of California, had a different plan, which was to make New Orleans or Vicksburg the eastern terminus of the Butterfield line, increasing the service to tri-weekly, in twenty days, at $400,000 yearly compensation for carrying the letter mail only, and to make a contract for sea service by steamship for carrying the printed matter in twenty-one days, at $400,000 per annum.

Of these various proposed measures the Hale substitute was the favorite one in California, but against it the southern influence bore heavily, while neither Gwin nor Latham favored it. Under these bewildering circumstances the postmaster-general, who could not guess what congress would do, and who felt the necessity of appeasing the public in some way, arranged to give a contract to Russell, Majors & Co., of St Joseph, Missouri, to transport a letter mail tri-weekly from St Louis to Placerville in twenty days, for $600,000 yearly compensation, and to carry a fair proportion

of the printed mail matter semi-monthly in thirty days, Hale's idea. The postmaster-general also agreed with Butterfield to transfer his line to the San Antonio and El Paso route, so as to run from Columbus, Texas; and that trips should be made tri-weekly on a schedule of twenty days. But when the parties were assembled to sign contracts, the Butterfield company declined to bind themselves to carry the printed matter; and on the last day of the session, one hour before adjournment, the senate sent to the house, not a bill for an overland mail, but a general post-route bill, with ninety amendments, which, of course, could not be read, much less voted upon, in that final hour, wherefore it failed, as was intended.

To add to the confusion, the ocean mail suspended on the 30th of June, no provision having been made for the renewal of the Pacific Mail Steamship service, which had expired in October 1859, and had been continued to July 1860, conditionally, to await the outcome of other experimental contracts. Early in June Vanderbilt, of the Pacific Mail Steamship line, and William H. Davidge of the Atlantic and Pacific Steamship company, offered the postmaster-general to carry the mail, or as much of it as the department chose to send, three times a month, for $300,000, ocean service. But the house, being suspicious of the manner in which contracts were let, passed an act prohibiting the postoffice department from paying a greater compensation for ocean mail service between New York and San Francisco than the amount of the postage, which was indignantly rejected by the steamship companies as putting them on the footing of foreign and not domestic mail carriers.

It was, besides, manifestly unfair to appropriate $600,000 for one land route and $400,000 for another, carrying only letters, which constituted but two per cent in weight, and to offer nothing but the postage for the ocean service, which transported an immense

but unprofitable amount of printed matter. More than thirty tons had been carried by a single steamer, of which ninety-eight per cent was in newspapers, magazines, books, and other low-grade matter.

On the 18th of June the steamship companies still offered to carry the letters for the postage, and the remainder of the mail for twenty-five cents a pound, this being the minimum charge for fast express matter, but no arrangement was arrived at; and so indignant was the president of the Pacific Mail Steamship company that it was doubted if he would allow his ships to carry Wells, Fargo & Co.'s express mail.

The San Francisco *Evening Bulletin* of July 17th remarks that "California is in a worse condition than she ever occupied before. We have no mail at all except the semi-weekly Butterfield overland mail, which is exclusively for the carriage of letters. Newspapers and letters, if we get them at all, must come by express or private hand. And should a couple of hundred Indians take it into their heads to attack the Butterfield stage, we shall have no mails at all." This was indeed a dark prognostication, and fortunately never came about, although the Comanches about this time murdered a station-keeper at the head of the Concho, and drove off the company's stock at this place. The real foe to California interests at this critical period of its history was its senior senator, who while chairman of the postal committee traded off the promise of a daily mail for a fancied personal advantage. He sacrificed Hale's bill, which might have been passed but for his scheming against it, under the assurance from the administration that after the adjournment of congress the postmaster-general would enter into contracts with Russell, Majors & Co. and others, whereby California would receive by different routes six mails a week. The president and postmaster-general refused, after their purpose was accomplished, to enter into any contract for the St Louis and Placerville route, and the senator who had

betrayed his state found himself in a painful position before his constituents.

Subsequent to the adjournment of congress, Russell, Majors & Co. proposed to the postoffice department to carry the entire mail, temporarily, from St Joseph to Folsom three times a week, the time to be twenty-five days, for the sum of $900,000 per annum, and after the first of July 1861, six times a week, on the same schehule of time. This company also established in May 1859, the Leavenworth and Pike Peak express, stocking their line with 100 coaches and 1,100 mules. Their route for several months was up the Republican river; but in the autumn of 1859 they changed it to the protected Platte route, on account of trouble with Indians. In the spring of 1860, to satisfy himself and congress of the feasibility of a fast mail over the central route to California, Russell and others inaugurated the pony express, which was running during the suspension of the ocean mail, as I shall show hereafter, and which afforded material aid and comfort to the business community.

On the 11th of July, in view of the success of the pony express, and the reproaches heaped by the press upon the steamship companies, they resumed the carrying of the mails, trusting to the sense of justice of the next congress to compensate them, which it did by the payment of $350,000 for that year, and by continuing their contract. The postmaster-general in the latter part of summer increased the service from Placerville to Washoe to a weekly mail, and also, at the same time increased the service on the eastern end of the central transcontinental line to weekly, as far as Julesburg, for the benefit of Denver, but the intermediate line to California remained semi-monthly on this route until the following summer.

By an act of congress approved March 2, 1861, the contractors on the Butterfield route were authorized and required to move their stock to the central route, and to transport the entire letter mail six times a

week between some point on the Missouri river and Placerville; and, also, to deliver the entire letter mails tri-weekly to Denver and Salt Lake City. The time allowed for the letter service was twenty days for eight months in the year, and twenty-three days for the remaining four months; for the residue of the mail matter a period not to exceed thirty-five days was allowed, with the privilege of sending the printed matter by sea in twenty-five days, and public documents in thirty-five. The company was also required, until the completion of the overland telegraph, to run a pony express semi-weekly, at a schedule of ten days during eight months, and twelve days during four months of the year, carrying for the government, free of charge, five pounds of mail matter, with the privilege of charging the public one dollar a half ounce; and for all this service the company was to receive $1,000,000, the contract to expire July 1, 1864.

The Butterfield company were declared entitled to their regular pay under their former contract during the time necessarily occupied in removal, and, also, to two month's pay as indemnity for damages incurred by the interruption of their business. The postmaster-general was authorized to replace any local service affected by the discontinuance of the Butterfield route outside of California. The company accepted the modification of their contract, and began their service on the central route at St Joseph on the 1st of July 1861 at 9 o'clock A. M., and was fourteen days and eight hours to the first station of the California telegraph line, which was then fifty miles east of Fort Churchill in Nevada, on its way eastward. The coach reached Placerville in seventeen days and four hours, bringing 2,100 pounds of mail, leaving four passengers at Salt Lake City, bringing one through, who proceeded at once to Portland by stage, a further distance of 750 miles.

At last the long wished for daily mail across the continent was an accomplished fact, and the people

were rejoiced accordingly. But during all the period of the civil war the Indians on the route, taking advantage of the employment of the army, were extremely hostile, and in 1864 succeeded in interrupting the mails for a period of four months, by murdering passengers and employés of the company, and destroying stations and property along the road, for which the government has since had to pay. During this period the Pacific Mail Steamship company carried all the mail matter, even for Salt Lake City and Denver, which was brought to San Francisco and sent east under the protection of the California volunteer cavalry, in the service of the United States. From April 1st to August 15, 1867, Holladay, contractor on the overland mail route, was robbed by the Indians of 350 head of stock; had twelve stations burned, with large amounts of hay and grain; had three coaches and express wagons destroyed, several passengers severely wounded, and thirteen of his employés killed outright.

The bill for extra service by the steamship company was paid in 1870, amounting to $21,543, which was in addition to the regular pay of $160,000 annually paid to that company for carrying printed matter, and such letters as were marked "steamer," as many were, the steamships carrying a large amount of mail notwithstanding the fact that the overland service was usually faithfully performed, and more quickly than the sea service.

In 1865 the Southern Overland mail was in effect revived, a route being established under an act of congress of the previous year, over which a weekly mail was carried from San Bernardino to Santa Fé. The connections at either end made it a through line from the Pacific to the Mississippi. It ran from Los Angeles to San Bernardino, crossing the Colorado at La Paz to Prescott, thence along the 35th parallel to Santa Fé, where it terminated by transferring the mail to the Kansas City line. The time consumed

between San Francisco and La Paz was from eleven to thirteen days, and between San Francisco and Prescott fifteen days. Shipments of ore from the Arizona mines first gave this mail line its importance, which steadily increased until the Southern Pacific railroad opened up the country, and transported both ores and mails.

The stage and mail routes north and northeasterly through Oregon, Idaho, and Montana became, by connecting with branch lines from the great central overland route, a part of it; but the settlement of the territories, creating imperative needs belonging to separate communities, has rendered necessary railroad transportation from a number of points up and down the Pacific coast, and the post-route is no longer thought of as a thing by itself.

The reflection which constantly occurs in recalling the circumstances in which California was formerly placed concerning its communication with the older states is that difficulties disappeared in the most marvellous manner as soon as it was determined to attack them. For how long a time it was the popular belief, maintained, too, by those best acquainted with the country, that the Sierra could not be crossed in the winter season with loaded wagons, or any wagons at all, and that no stage line could be operated on the central route except in summer? The mail was carried, as I have shown, on a man's shoulders from Genoa to Placerville. Yet when the people made up their minds to a stage line to Nevada they had it at once, and it was never discontinued. In the same manner a railroad was first denounced as impracticable, then attempted, and was a success from the inception to the completion. In truth, the route so long fought against has proven less liable to interruptions from climatic conditions than the southern line, which has to contend with sudden freshets of such power and extent as to cut off travel from a few days to several weeks at a time, year after year. It is true that the

obstacles to be overcome in crossing the mountains compelled first-class road-building in this portion of the central route; but as is now generally admitted, both on the Central and Southern Pacific the entire roadway has been substantially built. On the former no detentions were ever experienced from any cause except snow, which the snow-ploughs removed in a short time without injury to the road. Crossing the plains is a matter of five days instead of as many months, and the children of the pioneers have no knowledge of the rapid steps by which their fathers arrived at the condition of luxury by which they find themselves environed. Compared with other communities the men of the Pacific coast have experienced lives of great intensity; for

> "We live in deeds, not years; in thoughts, not breaths;
> In heart-throbs, not in figures on a dial."

Out of the great anxiety of the residents of California for a quicker means of communication than any which had yet been obtained arose that wonderful conceit, the pony express. To whom was due the credit of the original idea has been a matter of question; but according to Gwin, who in January 1855 introduced "a joint resolution for the establishment of an express mail, weekly, between St Louis, Missouri, and San Francisco," it was originated by B. F. Ficklin, general superintendent of the large freighting association of Russell, Majors & Co. of St Joseph, Missouri, and it must have been in contemplation as early as 1854, while according to all authorities its object was to demonstrate the entire feasibility of the central route.

The resolution proposed that the postmaster-general should be allowed to contract with the most responsible bidder who should offer to carry a letter express between St Louis and San Francisco in ten days, starting regularly once a week, and if failing from any cause to complete a trip in fifteen days, to forfeit compensation for that trip, the compensation not to exceed

$5,000 for each round journey. The president was to establish five temporary military posts at proper points on the route, which were to be selected by the contractor, who should have the right to occupy as much of the public lands at the stations along the line as was necessary, and a preëmption right to 160 acres at each station when the land came into market. The contractors should not be required to leave or receive letters at more than four intermediate points, nor should the postmasters at these places detain the express more than twenty minutes each. Not more than two hundred pounds of letters should be carried for the above-named compensation, but for an overplus there should be extra pay. A guard should accompany the mail through the most exposed portions of the route. The service was to commence within a year; and for three consecutive failures the contract should be annulled.

From Gwin's remarks on the bill I select a few. He said that the citizens of California and Missouri were ready to make such a contract, and to put such a line in operation in six months; that they were already moving in the matter of a mail stage route, and that the express would, with the aid given it by the government, enable the stage line to be safely operated; and he advocated the expenditure of $1,000,000 on a military road through the territories from Missouri to California; nor did he express any preference for one route above another. The resolution was referred, at his request, to the committee on military affairs, and not again heard from.

Indeed, when, in the effort to establish the central route, with which the subsequent settlement of the territories of Colorado and Montana had made the great freighting company better acquainted, the scheme of a pony express across the plains and mountains was broached, it struck the public mind not only as chimerical, but as something before unheard of, whereas the idea had been long entertained, not only by Fick-

lin, but by others who were looking forward to a daily stage line to California, to be followed in due time by a railroad. There was but one way to overcome the settled opposition of the south, which was to demonstrate that a mail could be carried uninterruptedly, and in less time than it was carried on the Butterfield route. An appeal to congress being useless at this period, the St Joseph company resolved to undertake the demonstration at their own expense.

In 1859 a company was formed at Leavenworth called the Leavenworth and Pike's Peak Express company, which opened a route up the Republican river to Denver. In the following year a new company was formed which embraced the eastern part of the old, that is Russell, Majors, Waddell, Jones, and Ficklin, and was known as the Central Overland California and Pike's Peak Express company. Its route was straight from St Joseph to Fort Kearny, and along the Platte to Julesburg, where it crossed the river and went to Fort Laramie, to Fort Bridger, Camp Floyd, and Salt Lake City. This company purchased Chorpening's mail contract, and continued the service. From Salt Lake City it continued west by a road through Ruby valley, and the Humboldt to Carson valley, and thence to Placerville, Folsom, Sacramento, and San Francisco. The contract was not worth much to the company except as a means of holding the route for future contracts, and as an adjunct, and a very important one, of the pony express. Ficklin was sent to arrange matters at Salt Lake City, while W. W. Finney came by sea to San Francisco to make the necessary arrangements here.

During the winter of 1859–60 ponies, or rather the tough and active native Californian horses, were distributed to the mail stations. At an expense of $70,000 provisions, men, and animals were placed along the road from St Joseph to Salt Lake City, and thence to California. The stations where ponies were changed were at first twenty-five miles apart, and

each rider rode seventy-five miles. Later the stations were placed nearer together. It was decided that the safest way to carry letters would be to adopt the Spanish mochilla, a heavy leather covering for the saddle, and to have a pocket in each of the four corners, in which the letters, none of which could exceed a half-ounce in weight, were locked, after being carefully wrapped in oiled silk to provide against wetting by submersion in streams or by pelting storms. The mochilla was transferred from pony to pony and carried through from beginning to end of the route. Five dollars in addition to the government postage was what it cost to send a letter by this novel method.

This enterprise was regarded in California with mingled doubt and hope. The time set for the start was the 3d of April, 1860. This is what the *Bulletin* said of it on that day: "From one o'clock to the hour of our going to press, a clean-limbed hardy little nankeen-colored pony stood at the door of the Alta Telegraph company's office—the pioneer pony of the famous express which to-day begins its first trip across the continent. The little fellow looked all unaware of his famous future. Two little heads adorned his head-stall; from the pommel of his saddle hung on each side a bag lettered Overland Pony Express. The broad saddle, wooden stirrups with immense flappers to guard the rider's feet, and the girth that knows no buckle, were of the sort customary in California for swift horsemen who appreciate mud. Readers who get early copies of the *Bulletin* may see the pony that will figure in congressional debates in the newspapers and in history, still standing at the telegraph office door. At a quarter to four he takes up his line of march to the Sacramento boat. Personally he will make short work and probably be back to-night; but by proxy he will put the west behind his heels like a very Puck, and be in at New York again in twelve days. At two o'clock the let-

ters he had to carry numbered fifty-two; probably his whole cargo will be seventy-five or a hundred letters, at five dollars each. Those in both pony and telegraph expect to be landed in New York in nine days after quitting San Francisco."

Such was the send-off of the first California pony. On the following day a telegram from Placerville announced that the time made from Sacramento to Placerville, fifty miles, was four hours, and that the pony left the latter place at forty-eight minutes past six o'clock in the morning, on its way over the mountains, flying.

After passing Carson, to which point the telegraph line extended, no more news could be obtained of the pony's progress, and California waited with anxiety to catch the first sound of hoofs from the other end of the line. It came on the 12th, when the wire flashed the intelligence of the pony's arrival from the east at Carson, and with news only nine days old. Wonder of wonders, and heart-stirring achievement! On the 13th the pony was at Sacramento, where the steamer, the swift *Antelope*, awaited his coming, and at a little past midnight landed him in San Francisco.

A certain arrival was quite a different thing from an experimental departure, as one may see by the language of the press. It took seventy-five ponies to do the carrying from the Missouri to the Pacific in ten and a half days, but the last one, which arrived on the *Antelope*, was vicariously loaded with the glory of them all. He was the veritable hippogriff which shoved a continent behind his hoofs with ease; which snuffed up sand-plains, tossed lakes, mountains, prairies, and forests, whirling behind him in an eastward rushing river; which left a wake like a clipper's, carried a bone in his mouth, and sent his fame rippling away north and south as nothing had ever done since the gold discoveries; which frightened whole tribes of Indians into believing him an arrow in the shape of a horse and rider whizzing past; which made

eagles and all swift-winged birds heartsick, and sent them into convention to devise methods to sustain their reputations; which crossed the railroad track fifteen miles out of Sacramento just as the train passed for Sacramento, and arrived in the city at the same moment! These were some of the newspaper remarks upon the pony's achievement.

It was announced at the theatres in the evening that the steamer would bring the pony, and the male part of the audiences, with some enthusiastic women, remained on the street after the performances were over to witness the arrival. The California band paraded the streets; bonfires were kindled; the Monumental bell rang out the fire companies, who, when they found no fire, joined in the demonstration. At midnight the procession had reached the foot of Broadway, where it waited, amusing itself with music, speeches, and jests, until the *Antelope* reached her wharf, when it re-formed, and opening right and left, with rousing cheers allowed the pony, a bright bay, to pass between the ranks. A halt was called in front of the Pony Express office, when a woman, tearing the ribbons off from her bonnet, tied them around the neck of the immortalized but no doubt weary little beast, which was after some further petting allowed to go to its stable, while the people went to their beds in the early morning.

The following table of the arrivals on the first trip out from the Missouri river shows the time made:

Left St Joseph, Mo.	6:30 P. M. on April 3d.
Arrived at Salt Lake City	6:30 P. M. on the 9th.
Arrived at Carson City	2:30 P. M. on the 12th.
Arrived at Strawberry Valley	4:35 A. M. on the 13th.
Arrived at Placerville	2:00 P. M. on the 13th.
Arrived at Sacramento	5:30 P. M. on the 13th.
Arrived at San Francisco	1:00 A. M. on the 14th.

At Sacramento the excitement was even greater than in San Francisco, and hundreds of people went out on the road to meet the express, while the town rang with jubilant noises of every description. It was on such occasions as these that the Californi-

ans showed their strong attachment to their former homes, as well as their appreciation of business facilities. To be only ten days from home—what unutterable joy! The difference between the east and west sections of the country was well illustrated in the letter-lists, the first pony from the east bringing but twenty-five letters. Not that there was this difference in the people, but in their circumstances. Those firmly settled amidst countless blessings could not see the benefit to be derived from letters costing over five dollars, when in a few days more the same news would be brought by regular mail. Even business men hesitated at the expense. It was California that felt and recognized the value of rapid communication most.

St Louis, of all the cities east of the Missouri, had the greatest interest in the overland express enterprise, and in May, after a few successful trips on the central route, it was proposed to establish a second line over the Butterfield route as soon as the telegraph between St Louis and Fort Smith, and between San Francisco and Los Angeles should be completed, and to run between the telegraphic points, 1,500 miles, in five days. This astonishing proposition was distanced by Russell and Majors, who announced that they would do the running on the gap between telegraph stations in four and a half days, if they had to build a telegraph line of their own, for the central route would not be permitted to fall behind any other; they had capital—a million of dollars to risk on it—and their actual expenses were $5,000 a month, but if the express should never pay they were able to run it for the glory, it being their purpose to establish their route on a firm basis, no such word as fail being known in their vocabulary. The more competition the better, said the Californians; this strife would lead to the discovery of new passes and cut-offs by which the long road would be shortened and made smooth; and people were urged to patronize the pony.

Copies of the principal newspapers were printed on tissue paper for transmission to the east by express, and news received in the same way, and only nine days old, was copied into the California papers.

It could hardly be expected that no interruptions should occur, in any case, to a one-man and one-horse express, passing over long stretches of unsettled country. But it so happened in 1860 that the troops in the Pacific division were withdrawn from the California, and even from the Utah stations, to fight Indians in eastern Oregon, leaving the overland route unguarded. There also occurred a brief war with the Pah Utes in Nevada, which was fought by volunteers. The excited state of the Indians, and the unprotected route of the express operated together to cause an interruption of several weeks in May and June, the stations between Salt Lake City and Carson having been destroyed, the employés killed, the stock stolen, one or more express riders murdered, and one mail entirely lost. These disasters coming upon the company before it had time to fix itself in the confidence of the people would, it was feared, defeat the enterprise, and loud was the lament which went up from the press in view of such a possibility. But no such result followed. The agent in California, assisted by the newspaper proprietors and business community, raised an armed company, and soon reëstablished the stations, and restored the service to its former condition. It was also increased to a semi-weekly service, with an increased efficiency as to time, the eastern news, by the aid of the telegraph from Carson, being frequently received when only six days old.

By one of those curious coincidences occurring in the history of California, upon which speculative thought is apt to linger, the pony express was started just at that juncture in our national affairs when news was most sought after and most exciting. It was scarcely established when it carried the intelligence

to Washington of the arrival of the Japanese embassy, giving congress time to make an appropriation, and send a steamer to the Isthmus to receive the distinguished visitors. In June followed the Charleston convention, with the subsequent events, so important in their bearing. A few months later came Lincoln's inaugural address, which was brought through in five days and eighteen hours, or as quickly as the railroad brings the mail now, and secret despatches to the military department, and in short, some of the most weighty matters in our history were intrusted to the safely locked mochillas of the untiring pony, the thought of losing which was as unbearable as would be now the thought of suspending all our railroad and telegraph service. The fact that private persons were bearing the expense, who might any day decide not to carry it longer without aid from the government, was frequently dwelt upon in the public prints, and Senator Latham made an effort to obtain some small government pay on condition of a certain amount of service performed; but the attempt was rendered abortive by the same influences which defeated the daily overland mail in 1860. Almost the only aid rendered was by the issue of army revolvers and cartridges to the express riders, with which to defend themselves, single-handed, against parties of well-armed savages. The expense to the express company of the Nevada Indian war in losses, and the cost of extra men as guards, was $75,000.

It was well understood that Russell, Majors & Co. were not keeping up so costly a service simply out of philanthropy, nor to show the world what they could do, but for the definite purpose of proving that the central was the best route for a daily mail, the contract for which they hoped to obtain. Had it not been necessary to continue the service one year in order to include the winter months, it probably would have been suspended when congress failed to pass a bill for a mail over this route. But the plucky presi-

dent maintained an imperturbable front in spite of losses and disappointment, in the expectation of winning in the end. And so far as proving his proposition was concerned he triumphed, it being evident that if a single horseman could force his way through the unbroken snows of winter, at the rate of from 120 to 150 miles a day, stages running from each direction daily would have no great difficulty in transporting mails and passengers over the route.

But in January, while these matters were pending, Russell, president of the company, fell into difficulty —if, indeed, it were not a trap set for him by the friends of the southern route. The company was largely in debt, owing about $1,800,000; and although a large company, and with considerable assets, was embarrassed to a degree which made borrowing necessary to a greater amount than was convenient. The government was also in debt to the company on its contracts, congress having failed to pass an appropriation bill. While Russell was in Washington endeavering to procure some relief, he was induced to take $830,000 in bonds of the interior department, as a loan, and giving as security acceptances on the war department furnished him by Secretary Floyd, a part of which were not yet due. The bonds, as it turned out, were stolen by Godyard Bailey, a family connection of Floyd's, and law clerk in the interior department. Both Russell and Bailey were arrested, and after a brief confinement in jail were bailed out by their respective friends. In the temporary confusion which followed the discovery of the fraud, Russell lost his opportunity, as, perhaps, it was meant he should, and congress in February authorized the postmaster-general to advertise for bids for a daily mail over the central route; but soon afterward, in March, it was enacted that the Overland Mail company on the Butterfield route should be required to move to the central route, as I have before related. The law demanded, also, that the contractors should, during

the continuance of their engagement, or until the overland telegraph should be completed, run a pony express semi-weekly, as Russell and Majors had done, carrying five pounds of government mail free, and charging their patrons not more than one dollar a half-ounce, the mail and express service to be performed for $1,000,000 annually. These matters were hardly arranged before the madness of secession and civil war banished all interest in merely personal matters, as in the case of Russell, and greatly diminished the importance of Pacific coast affairs in congress.

California, as it so frequently happened, was, however, in a muddle with the postal arrangements. The Southern Overland mail was ordered to be withdrawn early in April, and could not be established on the central line before the 1st of July. The old Chorpening contract was only continued by an extension of time to the 26th of June. The Pacific Mail contract would cease on the 1st of July. There would surely occur, from Indians or otherwise, a break in the overland service, which, if suspended, would suspend the pony express, as the stations of the company were necessary to the maintenance of the express, and so forth.

Some of these auguries failed. Arrangements were entered into between the two great contracting companies by which Russell and Majors retained possession of the western end of the route and besides a contract on the San Francisco and Los Angeles route; and the pony express, although the eastern division was soon sold to Ben Holladay, and run regularly, not only until the daily overland mail was definitely fixed on the central route, but until the overland telegraph was completed, October 24, 1861, shortly after which it ceased its long gallop and was heard of no more. It had already lost much of the favor with which it was first regarded, being never quite the same after the transfer to new parties. Yet some

months after its suspension the legislature of California protested against its stoppage, and the press declared it should be reëstablished, for with a daily overland mail and a through line of telegraph, California had less satisfactory communication with the east than when she depended alone on the pony express.

As to the merits of its founders, one cannot help feeling that Russell, Majors & Co. suffered a hardship in being deprived of the pecuniary reward of their generous enterprise, and the enjoyment of the applause to which they were fairly entitled, and which would have moved them to keep up their *esprit de corps*. But however this may be, and although while as an undertaking it was a success, yet, financially a failure, it formed a most interesting episode in the history of overland transportation, with a glamour of romance about it. For was it not a daily and hourly exhibition and repetition of the courage and endurance for which the poets have heaped honors on selected heroes whose services to humanity were no greater, perhaps, than those performed by the pony express?

A strict constructionist might exclude the telegraph from transportation methods and measures, but I must be allowed to treat these conveyances of intelligence that otherwise would be forced to be carried in the mails, as belonging to transportation—adjunctively, at least.

The telegraph, like the steamship, was in a state of development when California became United States territory. The pioneer line of magnetic telegraph in the world was established between New York and Washington in May 1844, but did not for a year or two come into public favor to any great extent. However, the company, which had a capital of $370,000, soon gained the confidence of the public, and their business became profitable. During six and a

half years, ending in July 1852, the receipts amounted to $385,641.42. In that year they sent 253,857 messages, the charges on which amounted to $103,232.37. They had seven wires in operation from Philadelphia to New York, and six from Philadelphia to Washington, and employed 125 persons on the lines, which were 275 miles long. In the mean time many other lines had been established in different parts of the United States.

California, which at first felt no interest in any news except states news, did not set up a telegraph at once, because it took some little time to get accustomed to the idea that the people had come to stay. They moved so rapidly from place to place, it would have been in vain to have set up telegraph poles in their wake, for by the time the operator was ready for messages the town would have decamped.

In May 1852, business having begun to settle down, and business centres to be pretty surely indicated, the want of rapid communication was felt, and there was chartered by a special act of the third legislature a telegraph line between San Francisco and Marysville, via San José, Stockton, and Sacramento, the exclusive franchise being granted to Oliver E. Allen and Clark Burnham, who were obligated to pay to the state three per cent of the net proceeds of their lines—which obligation, however, the company was released from in 1866; but nothing in the act was to be so construed as to prevent the construction of a telegraph line between the Atlantic and Pacific, showing the constant aspiration of the people for connection with their old homes.

Allen and Burnham were unable, owing to losses by the great fires of 1852, to complete their line according to the terms of the act, which required it to be in operation by the 1st of November 1853, and the company was reorganized under the name of California State Telegraph company. The first officers elected were John Middleton, president; directors,

Franklin C. Gray, John W. Dwinelle, Solomon A. Sharpe, A. J. Bowie, J. M. Estell, Lucien Hermann, of San Francisco; John A. Read, of Sacramento; John C. Fall, of Marysville; treasurer, Joseph C. Palmer; secretary, James C. L. Wadsworth. The superintendent was W. B. Ransom, and the contractor W. M. Rockwell. James Gamble had charge of the wires, and superintended the stringing of them, which was the beginning of his connection with telegraphy on the Pacific coast. The new company commenced operations September 13, 1853, working energetically to secure the franchise, and completed their line to Marysville, two hundred miles, on the 25th of October, six weeks from the day of commencement.

They had not the honor, however, of publicly setting in motion the first magnetic telegraph on the Pacific coast. This distinction was achieved by two members of the Merchants' Exchange—Sweeny and Baugh—on the 22d of September 1853. A line of wires had been extended some six miles from the Merchants' Exchange on Sacramento street to the outer telegraph station at Point Lobos, where, and also on Telegraph hill, were erected previously some old-fashioned revolving apparatus for signalling the arrival of vessels. In the place of these clumsy contrivances, Sweeny and Baugh established telegraphic communication by more modern means, and on the 23d celebrated the event by inviting the members of the San Francisco press to be present at the opening at Point Lobos; also the foreign consuls, Aikin for England, and Dillon for France. The operator was Henning, who "explained the apparatus to the assemblage." The proprietor of the *Commercial Advertiser*, then a leading journal of San Francisco, was accorded the privilege of sending the first message—a congratulatory one—to the office of his paper, and receiving the answer, on which cheers and champagne were indulged in by the assembled guests, and the telegraph was declared an institution of California. A fog-bell

was put up near the Point Lobos telegraph station by the owners of the line, to be tolled in foggy weather. Taken all in all, although an apparently small enterprise, this first short line of telegraph was of great importance to the commerce of San Francisco.

The second company incorporated was formed under the general laws of the state, and was known as the Alta California Telegraph company. It organized in September 1852, with a capital of $70,000, nearly all the stock being taken by January 1853. The election of officers in September of that year resulted in the choice of J. E. Strong, of Sacramento, president; H. R. Hawkins, of Auburn, secretary; B. F. Hastings, of Sacramento, treasurer; Ferris Forman, I. M. Hubbard, Vincent E. Geiger, of Sacramento, H. Davis, of Nevada City, J. Winchester, of Grass Valley, H. T. Holmes, of Auburn, George Woods and William Gwynn, of Sacramento, directors. This line was extended from Sacramento to Nevada City, via Mormon island, Diamond springs, Placerville, Coloma, Auburn, and Grass Valley, 121 miles, and completed for operation in January 1854.

At the time this line was being built there was in process of construction by its president, J. E. Strong, a line from Stockton to Sonora and Columbia, which was completed in December; and another from Mokelumne hill and Jackson, thus connecting all of the most important towns in the state. In 1855 the Alta California company determined to construct a line between Sacramento and San Francisco, crossing the strait of Carquines at Martinez, and coming down the eastern shore of the bay, which it crossed at Oakland.

This line was completed by means of submarine cables in 1856, and a branch extended to Vallejo in 1857.

The receipts per month of the Alta California company were ascertained to be $6,802, and its profits $5,132, or seven and a half per cent per month on its capital stock. That the business of telegraphy was

profitable was shown by the immediate payment of dividends, the California State company paying two on its net earnings before the 1st of April 1854. The rates, so far as I have been able to learn them, were two dollars for the first ten words, between San Francisco and Sacramento, and for every additional five words seventy-five cents. From Sacramento to San José the charge was a dollar and a half for ten words, and fifty cents for every five words additional. From Sacramento to Marysville or Stockton one dollar for ten words and forty cents for five over. In 1857 the officers of the California State company, whose headquarters were at San Francisco, were as follows: H. W. Carpentier, president; James Gamble, superintendent; J. C. Palmer, treasurer; C. C. Butler, secretary; Theodore F. Moss, E. D. Keyes, C. Ferguson, C. H. S. Williams, directors; John Leatch, agent. The capital stock of the company at this period was $300,000.

At the same period the officers of the Alta California company were D. W. Welty, president; J. Lambert, secretary; J. M. McDonald, treasurer and superintendent; J. H. Caruthers, P. A. McRae, J. M. McDonald, J. Lambert, directors. The principal office was in San Francisco.

In 1860 the State company absorbed the Alta California company, and was reincorporated in 1861. For several years it controlled nearly all the lines in the state or on the coast. In March 1858 the legislature granted a franchise for a line from San Francisco to Los Angeles, via San José, Santa Cruz, Monterey, and intermediate places, to Solomon A. Sharp, Leonidas Haskell, Robert H. Bacon, and James S. Graham. Taking the language of the act as an indication, there would seem to have been some abuse of power growing out of absolute monopoly, for the above persons were forbidden to show any favoritism in the sending of despatches, but to take them in their course, except where newspapers had a

contract for the transmission of news, or in case of war or other important matter, which might be taken out of the regular order of presentation.

In 1859 Los Angeles was put in communication with the other towns in the state. The line was constructed by F. L. Vandenberg, and ran along the Butterfield stage road from Los Angeles north. Los Angeles county subscribed about $18,000 to this telegraph line.

About the same time, or a little earlier, telegraphic communication with Yreka was established under the management of J. E. Strong and I. M. Hubbard; Case superintending the construction for the Marysville and Yreka Telegraph company, with a capital of $100,000. Yreka became a repeating station, the northern line being too long for a battery to work without the repeating instruments, after the extension of the wires to Portland, Puget Sound and Victoria.

Laying out and putting up telegraph lines in California in the fifties was a wild kind of life. The survey of the country proceeded slowly, people being less interested in lands than in minerals during the first decade. The telegraph was in advance of roads or settlements, for the most part, and the constructors were compelled to engineer their lines as well as to build them. The thing was regarded with much curiosity by the settlers, and particularly by the native Californians, who accounted for the wire strung on crosses by calling it a Yankee device to fence out the devil. When a certain devout Mexican woman of San José beheld them she exclaimed, "Well, I believe those Americans are becoming good catholics," in both of which surmises there was doubtless much comfort. These were some bits of fun for the brave men, mostly young, who encountered every form of hardship in the interests of civilization, finding their way across untracked wildernesses, through forests and jungles, over mountains and rivers, in heat,

cold, and every discomfort, often ill of fevers contracted in malarious districts, but never faltering in their duties.

The greatest undertaking of 1858 was that of the Placerville, Humboldt, and Salt Lake Telegraph company, organized in May at Placerville, with the design of constructing a telegraph line to Genoa in Carson valley, and thence to Salt Lake City. The company was composed of F. A. Bee, Frederick McCrellish, P. H. Lovell, F. A. Bishop, Mr Randall, and Mr Jones, and they constructed their line to Genoa that year, the first pole being erected at Placerville on the 4th of July. In the spring of 1859 the line was extended to Carson City, in 1860 to Virginia City, and subsequently to Fort Churchill. This line was frequently called Bee's grapevine on account of the manner in which it was sustained by being fastened to trees, which were often broken by storms, leaving the wire tangled in thickets by the roadside, where wagoners in want of the means of repairing their outfit confiscated it to their purposes, pretending to think it the design of the company in leaving it there. However, this line served a highly important purpose in the early days of Washoe, and finally formed the first division of the transcontinental telegraph.

Immortal should be the memory, it is said, of the man who first thinks any one fine thought, such cases being extremely rare. Many imagine their fine thoughts, if they have any, to have originated in their own brain, learning later that they are as old as Greece or Egypt. It was a brave boast of Puck's that he would girdle the earth in forty minutes, but only a boast, the imp never intending to attempt it. Moreover, his boast did not carry with it the conception of encircling the globe instantaneously with his brain products. Thought is not a girdle because it is intangible, therefore Shakespeare is not the father of this more modern conception, which cannot be

claimed without a suspicion of intentional imposition. But whoever in the restless night watches, while in the fever of invention, first scorched his soul in the insufferable gleam of such a revelation, the flash that went forth so simultaneously illuminated the imaginations of men that all at once it possessed the certainty of a demonstrable proposition, and was named by orators, poets, and statesmen as such.

In April 1852 Senator Douglas of Illinois presented a petition from Henry O'Reilly, "a man of great experience in the business of telegraphs throughout the United States," who proposed to establish a line of telegraph from the Mississippi valley to the Pacific. He asked no appropriation of money or land, only that he might be protected in his enterprise; and he also suggested that since a line of military posts across the continent had frequently been admitted to be indispensable, that they should be established, and the mail carried from station to station by the soldiers. It was intended to make an appropriation for this purpose, which, however, failed in the general scramble to secure money for other projects at the close of the session. From this time a transcontinental telegraph was a never forgotten subject of speculative thought, and the California senators were more or less diligent in introducing bills which for some reason never were passed.

In 1858 the Placerville and Salt Lake company sent one of their directors to Washington to endeavor to procure government aid in extending their line to Salt Lake City, or further east, and to interest eastern telegraph companies in their enterprise. Accordingly Senator Broderick in May 1858 introduced a bill authorizing the postmaster-general to contract with Henry O'Reilly, J. J. Speed, and T. P. Shaffner to carry government messages to and from Pacific stations for ten years for $70,000 per year, besides which the above named trio were to receive preëmption rights to 320 acres of land every ten miles on

the route pursued. Gwin was opposed to whatever Broderick favored, and the bill failed for the same reason that the central mail route failed in 1860.

Meanwhile influences had been brought to bear on the California legislature, which in April 1859 passed an act pledging the state to give a subsidy of $6,000 a year to any telegraph company that should first make connection with an eastern line, and $4,000 a year to the second company which should go through. Thus encouraged, the Placerville and Salt Lake company determined to win the prize, in spite of a rival, and a dangerous one, on the Butterfield stage route.

And here a general view of the telegraphic situation in the United States becomes necessary to the understanding of that which followed. The North American Telegraphic association, Amos Kendall president, was a league which determined all questions affecting the interests of telegraphy, including new lines and tariffs. All the companies in the United States were consolidated under eight different heads, or, as they were styled, nations. 1st. The American company, or nation, embraced all the lines in the Atlantic tier of states from Maine to Louisiana. 2d. The Ohio and Missouri company had for its territory the line of states from Ohio to Louisiana. 3d. The Western Union company was allowed to stretch its lines from Buffalo to St Louis. 4th. The Consolidated Pennsylvania company controlled all the lines in that state. 5th. The New York, Albany, and Buffalo companies embraced most of the lines in the Empire state in their nation. 6th. The Missouri company controlled all the lines within Missouri, Iowa, Kansas, and Nebraska. 7th. Illinois, Wisconsin, and Minnesota constituted a nation, owned by Caton. 8th, was a nation including Arkansas and Texas.

Now it was plain that the California companies must constitute a ninth nation, by leave of the league of the eastern nations, because, in order to make through connections to any of the important cities,

terms must be agreed upon beforehand, and consent must be obtained. The American company favored the southern or Butterfield route, probably under the instructions of Senator Gwin; while Hiram Sibley, of nation 3, was the staunch friend of the central route, as was Cyrus W. Field, although he belonged to nation 1. It was agreed, finally, in the North American Telegraphic association in 1859 that the central route should be adopted, and all that now remained was to secure the aid of congress.

In the session of 1860 several bills were introduced in the United States senate; but the one which, after many modifications, finally passed was presented by Gwin, and empowered the postmaster-general to contract with the Placerville, Humboldt, and Salt Lake company for the use of a line for ten years from San Francisco to Washington, which being referred to the committee on postoffices and post-roads, was greatly altered before being approved. This bill, which was ably advocated by senators Latham, Wilson, Seward, and Benjamin, and earnestly opposed by Senator Jefferson Davis, named the following corporators: Zenas Barnum, Thomas R. Walker, John H. Berryhill, Hiram Sibley, Norvin Green, John D. Caton, Frederick A. Bee, Charles M. Stebbins, and James S. Graham, most of whom represented great telegraphic companies. It gave to the corporators $50,000 annually for ten years, a right of way, the use of land for stations, and authority to charge four dollars for a message of ten words.

In the committee, of which Colfax was chairman, the subsidy was reduced to $40,000 a year, and in the house the charges lowered, after which he labored for it with much tact and industry. Conkling also befriended the bill, and Alley of Massachusetts; but the California delegation in the house did nothing to distinguish themselves or their state in this matter.

The bill, as amended, authorized the secretary of the treasury to advertise for sealed proposals, to be

received for sixty days after the passage of the act, for a line or lines, to be constructed within two years from July 31, 1860, from some point on the west boundary of Missouri, by any route the contractors might select, to San Francisco, for use by the government for a period of ten years. No preëmption right to lands was accorded, though permission was granted to the successful bidder to use for ten years such unoccupied public lands as should be necessary for the right of way, and for the establishment of stations, not exceeding one in fifteen miles on the average of the whole distance. The government was always to enjoy a priority of use of the line, which was to be free to its demand until, at the ordinary rate of private messages, the amount reached $40,000 a year, when the excess should be certified to congress by the secretary of the treasury. The coast survey, Smithsonian institution, and National observatory were secured a free use of the line forever; and to the government was reserved the privilege of connecting the line with any of its military posts. The contractors had the right to the same terms whenever the line should be extended to Oregon. No contract with the government for the subsidy was to be made until the line was in actual operation, and payments should cease whenever the contractors failed to comply with their agreements. The charge for a single message of ten words should not exceed three dollars, with the usual proportionate reductions upon despatches of a greater length.

Although according to the wording of the act the contract should have been made with the lowest bidder, provided it did not exceed $40,000 per annum for ten years, it actually fell to the highest bidder, Hiram Sibley, representative of the Western Union Telegraph company, or nation 3, which bid $40,000. The other bidders were B. F. Ficklin, $35,000; Theodore Adams, $29,000; and Harmon and Clark, $25,000; but before the time came for giving bonds

these latter parties had withdrawn, and the highest was also the lowest bidder.

Meanwhile the North American association had agreed in convention at New York that as the Western Union company had more at stake than any other in the confederacy, the whole matter of the overland telegraph should be referred to it, and to the Placerville company. The parties represented by Sibley met at Rochester, New York, and agreed that if all the California telegraph lines would consolidate, with a capital of $1,250,000, they should, under the name of the Overland Telegraph company, have the construction of the line from Salt Lake to the Pacific connection; while the Western Union company, under the style of the Pacific Telegraph company, chartered by the Nebraska legislature, with $1,000,000 capital, should have the construction of the line from Salt Lake City to the eastern connection; and the subsidies offered by California and the general government should be shared equitably between them.

Upon this understanding J. H. Wade and A. W. Bee proceeded to San Francisco to effect the consolidation of the California companies, which took place in March 1861, H. W. Carpentier being elected first president of the Overland Telegraph company, and James Gamble general superintendent, and the Placerville, Humboldt, and Salt Lake company receiving $80,000 in stock of the consolidated company for property in hand which went into the concern. Work was commenced in May. East of Salt Lake City the construction was under the charge of Edward Creighton; from Salt Lake City to Ruby valley James Street had supervision, and from Ruby valley to Carson J. M. Hubbard was in charge. The line from Placerville to Fort Churchill was reconstructed, and the whole completed from Carson and Omaha to Salt Lake City between the 27th of May and the 24th of October 1861. The probable cost of construction was less than half a million dollars. The line followed

the stage road, and was in use until the completion of the Central and Union Pacific railroads and telegraph lines, or less than eight years. Its subsidies must have nearly, if not quite, defrayed its first cost, although it was primarily built entirely by private enterprise. The first despatch which came over the wires from Salt Lake City to San Francisco was accorded by the courtesy of the president of the company to Brigham Young, in reply to the following:

To Hon. Brigham Young, Great Salt Lake City: That which was so long a hope is now a reality. The transcontinental telegraph is completed. I congratulate you upon the auspicious event. May it prove a bond of perfect union and friendship between the people of Utah and California.

H. W. CARPENTIER.

To this Young replied:

To Horace W. Carpentier, President of the Overland Telegraph—DEAR SIR: I am very much obliged for your kindness, manifested through you and Mr Street, in giving me privilege of first message to California. May success ever attend the enterprise. The success of Mr Street in completing his end of the line under many unfavorable circumstances, in so short a time, is beyond our most sanguine anticipations. Join your wire with the Russian empire, and we will converse with Europe.

BRIGHAM YOUNG.

Immediately following these courtesies, Street telegraphed the following:

Colonel Baker was killed in the battle on the 21st while in the act of cheering on his command. Intense excitement and mourning in Philadelphia over his death.

Direct communication with New York was not established until the 6th of November. Thus was California brought close to the red field of war, and made to participate in the daily anxieties that tried men's souls for the next four years.

It was the original intention to make St Louis the eastern terminus or distributing point for Pacific news, but the tumult of rebellion that swept through the border states made it obligatory to fix upon some free-state centre, and Chicago was substituted, taking the route away from the cities along the Ohio river, and placing it along the great lakes.

A large business was done in telegraphing for the first few days, at one dollar a word, no attention being paid to the clause in the act of congress fixing the

charge at three dollars for ten words. But within a week after opening the line through to the east, the following rates were established: To St Louis from San Francisco for the first ten words five dollars, and each additional word forty-five cents; to Chicago, five dollars and sixty cents, and fifty cents for every additional word; to New York or Washington, six dollars, and seventy-five cents for each word over ten; to Boston, seven dollars, and for additional words sixty cents each. In the ten words were included the name of the place from which the despatch was sent, and the month and day when it was sent. This left seven words for a message at seventy-one and three-sevenths cents per word. The sending of the president's annual message cost $600 to the California press. At this rate the rich only could afford to use the telegraph, and the state and government were subsidising a luxury in the interest of capitalists; that is, the people whose money constructed the telegraph, or paid for its construction, were allowed no opportunity to be specially benefited by it. There never has been any second or third class telegrams, as there have been postage and railroad steamship fares. The indirect great benefit that the telegraph was to every person on the Pacific coast did not give the proprietors the right to withhold the blessing of its particular use. But it is slow teaching men that they own nothing, except by the consent of their fellows; that they came naked into the world and go out of it with nothing, leaving to whoever is fortunate enough to seize them their brief possessions.

Complaint being made of the abuses practised by the Pacific company, there was talk of a revolution of the government subsidy, in 1863, which threat called forth a memorial to congress from the overland company of California. According to this memorial, the net profits of the Overland line, including subsidy, had not exceeded $20,000 in the fifteen months it had been in operation. The memorial seemed to regard

this as a very insignificant return for the investment of $240,000, petitioned not to be deprived of its privileges, and complained that for dividends the company was compelled to depend upon its local business, the overland line being valuable chiefly as security against competition. That was a corporation view of the case. Writers on the subject say that "no line ever constructed on the continent became so immediately and largely profitable."

Out of one monopoly grew another. A few newspapers in San Francisco and Sacramento made an arrangement with the Overland company whereby only those in the combination could receive the news at first hand. When Conness was in the senate he made a movement to break down the associated press monopoly of telegraphic despatches, and to have public news delivered to all public journals at two cents a word. The associated press fought him, as, of course, they would, since their monopoly of news compelled all the world to buy their publications; but the principle he advocated was the right one.

It will be remembered that the California law which gave $60,000 in ten yearly instalments to the first overland telegraph company offered $40,000 to the second in ten yearly payments. Congress in 1860 was asked to grant a franchise for a telegraph through Missouri, Arkansas, Texas, and Arizona to Los Angeles, in California, to James M. Hughes and J. J. Mudd, but the committee to which it was referred suffered it to be forgotten. However, the Missouri company, or nation 6, ran their line west to Fort Smith on the Butterfield route, and also a direct line to St Joseph, but the Los Angeles, or Pacific and Atlantic, line, having been merged in the State Telegraph company, and thus in the Overland company, and the breaking out of the war having put an end to telegraphic construction on this line, it was many years before the fifteen-hundred-mile gap between

Fort Smith and Los Angeles was set with poles and spanned by telegraph wire.

The flood of 1861–2 was very destructive to the State company's lines in California. The whole Sacramento valley was a sea, troublous, and dangerous to navigate. Street and Ladd claimed to have accomplished the longest land voyage in boats ever made in their efforts to repair the mischief done by the deluge. The story is, indeed, great and pathetic. They left Stockton in a Whitehall boat, rigged for sailing, and bore away west by north toward Sacramento. The wind blew stiffly, and the current was dead ahead, the sea running wild, and the waves frequently dashing into the boat, the water being from three to thirteen feet in depth, and the telegraph poles being in places submerged to within a few feet of the top. Near Mokelumne City, at a place where there was a slight depression in the earth, the boat sailed over the wires! In this vicinity there were frequent breaks of from three to twelve poles, aggregating several miles, and as the country was a waste of waters it was impossible to replace them. The design of the navigators was to have gone to Sacramento, but wind and current being adverse, they were compelled by the force of the latter to turn back when within ten miles of their destination. Going with the current was even more dangerous, if less difficult, for the stream ran with greater rapidity out of the channel than in it, and it was not always possible to keep to it, or even to tell where it was. Reaching Rio Vista, near the junction of the San Joaquin, they were able finally to board a steamer for San Francisco.

The most important movement of the State Telegraph company after the completion of the Overland telegraph line was to extend a line to Portland, which was completed in March 1864, and continued to Olympia and Seattle, and thence to Victoria by submarine cable, in 1864–6.

The labor of constructing this northern line was

much greater than that of the Overland telegraph, or rather, it was of an entirely different nature, involving more personal exertion and risk than the line through an open country. In one case the material had to be transported long distances, and the work of supplying poles was given out to contractors. In the other, one of the greatest difficulties to be overcome was the too great amount of timber on the route, and the necessity of opening roads and bridging streams in order to pass the wagons with supplies and wire. When the construction party entered Olympia, September 4, 1865, it had built 120 miles of line and 40 miles of road in the previous sixty days. On the following day it started for more northern regions, being delayed by want of material for the line, and taking forty days to Seattle. From this point the weather was inclement, the country devoid of roads or settlements, and wagons useless. They were accordingly abandoned, and the small British steamer *Union* became the base of supplies, as the party skirted the eastern shore of Puget sound and the gulf of Georgia, having to carry poles and wire through thickets, over rivers, and while clambering cliffs or sliding down slippery declivities, for a distance of 200 miles to Fraser river. Such was the determination of the builders that 400 miles was constructed in nine months, 300 miles being through a forest unsurpassed for density on our continent.

On arriving at Fraser river the cable designed to connect the line with Victoria was not in readiness — in fact had been lost with the ship containing it, off Cape Horn, and it was not until November 1865 that a second cable reached Esquimalt, when it was laid with all possible despatch, the colonial government placing the gunboat *Forward*, Lieutenant Fox commanding, at the disposal of the company. The line between Portland and Victoria, in a distance of 346 miles, crossed fourteen rivers. This line, on account of the features here described, was the most

expensive one on the whole continent, and the most difficult to maintain; but the company asked for no aid from any of the business communities on its route. The enterprise was conducted by R. R. Haines and F. L. Vandenberg.

The legislature of 1863 granted to John B. Watson and assigns a franchise to put in operation a line from San Francisco to Unionville, in Nevada, by Napa City, Virginia City, Carson, and Dayton. This franchise was revoked in 1868. A charter was also granted to Watson to construct a line from San Francisco to Crescent City, via Petaluma, Santa Rosa, Healdsburg, Ukiah, and Eureka. In 1864 the State Telegraph company completed a line to Humboldt county, from which it would appear that Watson's franchise had been assigned to that corporation. This company also found means to purchase in 1864 the material of the Independent Continental Telegraph company, organized in 1863, and which had commenced and partially constructed a line from San Francisco to Salt Lake, via a submarine crossing at the Golden Gate, to Sacramento, Placerville, Virginia City, and Reese river, with the intention of connecting with the independent line on the Atlantic side. Louis McLane was the principal capitalist of this undertaking, and James Street manager. In September 1865 the United States Telegraph company commenced the construction of a telegraph line from San Francisco to the Missouri river, which had been completed to Salt Lake City in January 1866. It was consolidated with the Western Union very soon after the purchase and lease of the State Telegraph company's stock and property. These transfers answered a query of a popular journal of the day, which asked to know if the precedent established on California rivers, of the greater the number of boats and companies, the higher the rates, was going to be followed by the telegraph companies. The multiplication of

companies was not going to be allowed to lower the rates to the reduction of dividends.

The legislature of 1866 granted a franchise to Benjamin Flint and Jotham S. Bixby to construct a line of telegraph between San José, San Juan south, Paso Robles Hot springs, Santa Margarita, San Luis Obispo, La Potero, Santa Bárbara, San Buenaventura, Los Angeles, El Monte, and San Bernardino. The capital stock of the company was $150,000, divided into 300 shares, owned principally by Thomas Flint and William E. Lovett of San Juan, P. W. Murphy of Santa Margarita, and A. Wiley and Walter Van Dyke of San Francisco.

But whatever lines were projected soon came into combination with the State Telegraph company which itself combined in 1866 with the Western Union company. In January 1867 the Western Union took direct control of the Pacific coast lines, which in May of that year were formally leased to it. Previous to the lease being executed, the State Telegraph company elected as its president George H. Mumford, of the Western Union, who had been sent to California in 1864 to look after its affairs. Henry Haight was chosen vice-president, George S. Ladd secretary and treasurer, and James Gamble general superintendent. Mumford was still a young man, being born in 1840 at Rochester, N. Y. He died in Paris in 1875, much regretted by the telegraphic fraternity.

It was regarded as a promise of relief when the Atlantic and Pacific States Telegraph company represented by D. N. Barney, Henry Morgan, Lewis Roberts, W. H. Platt, and their assigns, and chartered by the legislature in 1866, entered the field as competitors for the telegraphic business of California. Their line ran by the way of San José, Stockton, Sacramento, and Marysville, and thence east to a connection with the lines in the Atlantic states. They were no sooner fairly under way in 1868 than they were enjoined by the Western Union company, who

also sued them for damages in the amount of $50,000, alleging in their complaint that the legislature of 1852 gave the company of which they were the assigns an exclusive right upon certain routes within the state, and forbade anyone to molest or destroy any of their posts or wires, whereas the new company had constructed a telegraph line in close proximity to theirs, and had in many places removed their posts, erecting them in other places, and that by reason of these proceedings the insulators on their line became deranged, and their business was injured, for all of which the court was asked to award them the sum named, to enjoin the intruding company and to compel the removal of its line. The Western Union—although its suit was denied, and notwithstanding that the chamber of commerce of San Francisco and the San José railroad company, which had given the new telegraph company leave to erect its poles on the line of its road, as well as public sentiment generally, sustained the Atlantic and Pacific company against the monopoly—by means that were best known to itself removed its rival even after the new line was completed to Sacramento.

About this time a demand was made on congress to enact a postal telegraph law, fixing the cost of telegraphing at one cent a word; and telegraphic monopoly was everywhere cried out against. The nearest approach to interfering with the despotic ukases of powerful corporations which congress did enact in these times was contained in an act to aid in the construction of telegraph lines, and to secure their use for postal, military, and other purposes. That act declared that any telegraph company, organized under the laws of any state, should have the right to construct and operate telegraph lines through any portion of the public domain along any military or post roads, and across any navigable streams, provided that navigation was not obstructed or travel interrupted; and wood, stone, and other material

might be taken from the public lands for the construction of telegraph lines; but the rights and privileges so granted should not be transferred by any company availing itself of them, to any other corporation or association; and the United States might, at the expiration of five years from the date of the act, purchase all the telegraph lines and properties at an appraised value to be ascertained by a competent commission. Before any company should exercise any of the privileges conferred, it should file its written acceptance with the postmaster-general of the restrictions and obligations of the act. This was legislation aimed at combinations, and the practice of soliciting franchises only to sell them out to wealthy companies; while the threat by the government to assume control of all telegraphic lines was a clear intimation that private companies were not doing the best possible for the public convenience.

When in 1858 the ocean telegraphic cable was successfully landed on the shore of Newfoundland and a message sent through the deeps between the heads of the British and United States governments, California was as enthusiastic in celebrating the event as if it had more nearly concerned her, because it was regarded as a promise of the overland telegraph, and eventually of an ocean line to the Hawaiian islands, China, and Japan, a preliminary survey for which was made between Honolulu and San Francisco by Lieutenant Brooke of the United States navy in 1857, with an improved apparatus for taking soundings that was invented by Brooke himself. But while at Hakodadi in Japan a severe earthquake was followed by a tidal wave which carried the surveying schooner *Fenimore Cooper*, and a Russian frigate, high up on the shore, where they were broken up, after which nothing further was heard of submarine explorations. It was made known, however, that about 300 miles west of the Golden Gate, and parallel with the Coast range and the Sierra Nevada, was a submerged

range of mountains, the tops of which were at a depth of two miles. Beyond these mountains the bed of the ocean was a nearly level plateau extending almost to the Sandwich islands. From these facts it was apparent that there would be less difficulty in laying a cable from California to the Islands than between Newfoundland and Ireland. But had the difficulty been twice as great, California would have found in that no reason for abandoning an idea once entertained; and from time to time the San Francisco press devoted considerable space to advocating a submarine telegraph to China. Indeed after the failure of the first Atlantic cable, I find the California papers saying that by joining with the Russian government in completing a line from St Petersburg to San Francisco via the mouth of the Amoor river and the west coast of America, San Francisco would be placed in the position to which New York aspired through the the Atlantic telegraph of being "the centre of the intelligence of the world."

"What a brilliant future," said the Sacramento *Standard*, "do these reflections open to view. There is nothing visionary in them. The Asiatic telegraph is the most feasible enterprise of that character that has ever been proposed. More gigantic undertakings have been accomplished. In some quarters the opinion is now entertained that it is only by the Asiatic route that telegraphic communication can ever be established between the old and the new worlds. There exists at least a doubt about the success of a submarine cable laid along the bed of the Atlantic. . . . If this should turn out to be correct, San Francisco, by the instrumentality of the Asiatic line of telegraph, will take the place of New York, and will in after years be the point from which the latest news from the old world will be transmitted to all parts of the United States." It is well to dream nobly, if we dream at all.

The Russian government in 1860–1 was engaged

in extending a telegraph line from Moscow to the Pacific, so as to connect Europe and eastern Asia, and possibly the west coast of America via Bering strait. This line was carried to Peru on the border of Siberia, thence across the Ural mountains to Omsk on the river Irtish, and thence to Tomsk and Irkutsk, after which it passed the Altai mountains to Kiakhta on the frontier of China, and thence was contained to Cheta on the Amoor river, terminating at Nertchinsk. It was intended to construct a branch down the Amoor to its mouth, and other branches also; but it was with the Amoor extension that Californians were desirous of making a connection by cable with some point on the northern coast of America.

Perry MacDonough Collins of California, American commercial agent to Russia, opened a correspondence with the governments of Russia and Great Britain to obtain the right of way, with other privileges, in the British possessions and Alaska, which were readily granted. He was encouraged by the Western Union company to apply to congress for sanction, which was given in a bill passed in June 1864, granting a permanent right of way, with timber and stone, and as much land as required for stations; and the secretary of the navy was authorized to furnish a steam or sailing vessel to assist in surveying, or laying cable, or to promote in any way the success of the undertaking. The government was bound to protect the line from injury by savages, and commanders of military posts were to be instructed accordingly. The government was to have the first right in the transmission of despatches; the rate of charges should be fixed by a convention between Great Britain, Russia, and the United States; and it was provided that the owners of the line should not make any contract, directly or indirectly, with any newspaper or association of newspapers to transmit despatches to them upon terms different from those open to all other newspapers or associations. To this extent, at least,

congress interfered to prevent combinations against the public interest.

Collins, in his correspondence with Sibley of the Western Union, endeavored to get him committed to his scheme of communication through Russia with Europe, and with Asia. Nor was it difficult; for, as Sibley wrote, "Our men are pressing me hard to let them go on to Bering strait next summer, and, as you say to me, if I had the money I would go on and complete the line and talk about it afterward. . . . No work costing so little money, was ever accomplished by man that will be so important in its results."

On the 28th of September, 1863, Collins formally submitted a proposition for the construction of the Russian-American telegraph to the Western Union company, renewing it in March 1864. It offered, if accepted within twenty days, to transfer his rights and privileges obtained under the Russian and British governments, to the company, and this offer was accepted, following which congress passed the act above referred to.

The grant of Russia was very liberal, engaging to construct a line of 7,000 miles to meet the American line at the mouth of the Amoor river, the right of way through Siberia being accorded. A rebate on messages of forty per cent should be allowed for a length of time to be subsequently agreed upon. The agreement of Collins with the Western Union secured him one-tenth of $1,000,000 of the stock to be created for the enterprise, free from assessment; the right to subscribe for one-tenth more; and the payment of $100,000 as compensation for eight years' service in securing the grants. The whole stock, consisting of 20,000 shares at $100 each, was immediately taken, and considered to be very valuable. No time was lost in commencing the work, which was only an extension of the northern line already completed as far as British Columbia. The expeditions as organ-

ized consisting of the following divisions under Charles S. Bulkley, engineer-in-chief:

LAND SERVICE.

Frank N. Wicker, Chief.	John F. Lewis, Chief Draughtsman.
Henry P. Fisher, Surgeon-in-chief.	Frederick Whymper, Artist.
Scott S. Chapel, Chief Q'trmaster.	Eugene K. Laborou, Ch'f Interpret'r.
George M. Wright, Adjt. and Sec.	Lawrence Conlin, Chief Carpenter.

AMERICAN DIVISION.

Edmund Conway, Chief.	F. A. A. Billings, Asst. Q'trmaster.
J. W. Pitfield, Agent B. C.	Henry Elliott, Clerk.
Henry L. Pope, Chief of exploration in British America.	Robert Kennicott, Chief of explorations in Russian America.
J. Trimble Rothrock, First Asst.	W. H. Ennis, First Asst.-
James L. Butler, Second Asst.	Thomas C. Dennison, Q'trmaster.
Ralph W. Pope, Operator.	Lewis F. Green, Engineer.

SIBERIAN DIVISION.

Serge Abasa, Chief.	Collins L. McRae, Chief of Explorations in Upper Siberia.
George Kennon, Quartermaster.	A. S. Arnold, Quartermaster.
J. A. Mahood, Chief of explorations in Lower Siberia.	Alexander Harden, Interpreter.

Richard J. Bush, Secretary.

The marine service, organized early in 1865, consisted of the flag-ship *Nightingale*, Captain C. M. Scammon; steamer *George S. Wright*, Captain W. H. Marston; bark *Clara Bell*, Captain John R. Sands; bark *H. L. Rutgers*, Captain M. Anderson; schooner *Milton Badger*, Captain T. C. Harding; bark *Palmetto*, Captain Arthur; *Golden Gate*, Lieutenant Davidson, and bark *Onward*. Three small steamers for use on rivers were constructed. Four other vessels, the *Erskin*, *Wood*, *Egmont*, and *Royal Tar*, carried material to the several stations. The United States government furnished the steamer *Saginaw*, and the Russian government the royal steamer *Variez*, besides which seven other vessels and steamers were employed, all armed for protection against the Indians.

The line to be constructed would cover 2,800 miles, and two deep-sea cables, one of 178 miles, across Bering sea, and another of 209 miles, across the bay of Anadir, were required; but the talent, the money, and the energy enlisted promised a brilliant success. The interest in this undertaking was national and world-wide, and under the influence of the prevailing enthusiasm the stock of the company advanced until it was held at a premium of from thirty to sixty per cent.

On the 7th of March, 1865, the United States steam cutter *Shubrick*, having on board General-superintendent Bulkley, Henry P. Fisher, a corps of draughtsmen, and others, proceeded to Sitka, via Vic-

toria and New Westminster, where James Gamble was to decide upon the best crossing of the marine cable to connect Victoria with the Oregon line. The *Shubrick* left Fisher at Sitka to gather information concerning the interior, and to have maps prepared for the use of the expedition. When preliminaries had been settled, the *Shubrick* returned to San Francisco, whence the main expedition sailed, July 8th, for the northern seas. The summer was spent by Bulkley in sounding the Bering strait with the steamer *George S. Wright*, and in getting a knowledge of the geography of the Asiatic and American coasts. The survey was completed in September, when the *Wright* reached Plover bay. Kennicott was to have explored the route from the mouth of the Yukon southward, going up that river in a small steamer constructed for the purpose, and travelling inland to meet a party from British Columbia. His death from heart disease suddenly terminated an honorable career. But the labors of his associates continued. During the winter the shore parties explored, with the help of reindeer, dogs, and sledges, the entire route of the telegraph line, with the exception of three hundred miles in Russian America, the mercury being forty degrees, and even fifty-five degrees below zero.

Stations in northeastern Siberia and northwestern America were constructed, poles set, the wires strung, and supplies distributed along the line in the following summer. Before the season closed in 1866 the material for the whole work was *in situ*, and there was every reason to believe that 1867 would witness its completion, as fully half the line was already up, and the north and south parties approached so nearly that during the winter communication was opened between them. No incidents going to show that unusual hardships would be habitually endured by persons in the service of the telegraph company occurred, except that the *Golden Gate* was cut through by moving ice off the mouth of the Anadir river in

the month of October, and her officers and crew, with the Western Union men at that place, were compelled to winter in houses made of telegraph poles and chinked with turf. But as the vessel's stores were landed, and game was plenty, no suffering was brought on from this accident; and although the cold was intense the men contrived to work and play as occasion required or suggested. About 8,000 poles were cut and rafted by a party of fifteen, whom Captain Scammon sent up the river on this duty. All the fleet except the *Golden Gate* returned safely to San Francisco to winter.

At this stage of the undertaking there occurred an unexpected event, which was no less than the successful laying of the sub-Atlantic cable. Since the failure of the first sub-Atlantic cable the expectation of its final success had died out of the public mind, which received the intelligence of its complete achievement with surprise as well as joy. The surprise of the Western Union company was dashed with disappointment, for the success of its great telegraphic scheme was predicated upon the idea that cables could not be successfully laid on the bed of the Atlantic; but now that this was proved untrue, it was a very simple proposition that two thousand miles of ocean cable must have a vast advantage over sixteen thousand miles of land lines, a large part of which was along an uninhabited coast. At a meeting of the company in the winter of 1866 it was resolved to recall the Russian-American telegraph expedition, which was done accordingly the following summer, after the 800 miles to Skeena river had been completed.

The loss to the company was very great, and bonds were issued for the redemption of the stock to the amount of $3,170,292. It was a severe test of the strength and resources of this association, but it paid this enormous bill without reducing the market value of its stock. It was, also, a remarkable example of

the manner in which private undertakings on a grand scale have redounded to the glory and advancement of our country. Who knows that the scheme of a Russian-American telegraph did not suggest to Secretary Seward the purchase of Alaska with its enormous natural resources? He was always the firm friend of the enterprise, and when it was at last abandoned wrote to the vice-president of the Western Union, "I do not believe that the United States and Russia have given their faith to each other, and to the world, for the prosecution of that great enterprise, in vain."

As for Mr Collins, he said in January 1869: "That the overland route, or rather that portion of it left unfinished by the Western Union company, has been abandoned, is true, but the general proposition of connecting our Pacific coast with Asia has not for a moment been abandoned by me. Under the grants to myself by Russia, Great Britain, British Columbia and the United States, more than one-half of the overland line and its connections has been constructed. First, on the American side up to within 260 miles of Sitka, in Russian America; and secondly, on the Asiatic side continuously, except one section on the Amoor river, for the construction of which all the materials are now on the ground, on to Europe, across the whole of Asia."

What was the loss of the Western Union company to the disappointment of this man! Long ago all that was perishable of the company's work has been destroyed. If ever we have a telegraph to Asia via Bering sea it will be one accompanied by a railroad to Alaska, which, indeed, is already spoken of. But in the mean time the world has been deprived of this important line of communication because the builders would not consent to compete with the shorter cable to Europe, preferring to sink a few millions outright, to giving mankind the benefit of a work nearly completed, at a rate less than the high one in contemplation. Had the government interposed at this period,

after purchasing Alaska, and taken in charge the Russian-American telegraph, might it not have had a very telling effect upon the commerce of the west coast?

The action of congress in requiring the railroads enjoying grants under the government to erect telegraph lines took from the Western Union the control of the central transcontinental route in 1869, when the Central and Union Pacific railroads were completed. F. L. Vandenberg entered the service of the Central Pacific Railroad company in 1866, and remained superintendent of the telegraphic department to the present time. The lines of this company were subsequently operated by the Atlantic and Pacific Telegraph company, which contracted for them in 1874, and which, in 1878, combined with the Union Pacific as mentioned below.

In 1870 San Diego was put in communication with Los Angeles, and a line extended northward through San Buenaventura to Santa Bárbara. In the same year the counties of Mendocino, Humboldt, Klamath, and Del Norte were authorized to issue bonds for the construction of a telegraph, but the act was repealed in 1874, no line having been constructed. In 1872 a line was built between Stockton and Visalia. The government in 1873 completed 600 miles of telegraph line in Arizona connecting with San Diego, the work being done under the superintendence of R. R. Haines of the Western Union. Mr Haines also constructed the coast line between Salinas and Santa Bárbara in 1874. Telegraphic communication with Yuma was established in 1877 by the Southern Pacific Railroad company. The following year a line was completed to Bodie. Thus, year by year the ends and bounds of the state have been brought together, until every part can now be reached by telegraph.

The Western Union is the local telegraphic power in the state. The company has a remarkable history. It was organized in 1851 with a capital of $350,000,

which had grown in 1877 to $41,073,410, of which the company owned $7,255,335. Its bonded debt amounted to $7,239,038. Its dividends were six per cent per annum, or one and a half quarterly. It had in operation 76,955 miles of lines, on which were stretched 194,323 miles of wire, and its offices numbered 7,500. Its gross earnings in 1877 were $9,812,-352.61. It employed 9,950 persons, 750 of whom were women. The amount of money transfers in that year were 38,669, and the amount transferred was $2,464,172.82, the profit from which was $92,364.93. The number of messages sent was 21,158,941; average toll per message was 43.8 cents; average cost 29.8 cents; and average profit 13.8 cents. The decrease in tolls in the ten years preceding was 61.6 per cent.

In 1878 an arrangement was entered into with the Atlantic and Pacific company for pooling the gross receipts of the business of the two companies, and dividing them on the basis of 87.5 per cent to the Western Union and 12.5 per cent to the Atlantic and Pacific. Of the Atlantic and Pacific outstanding capital of $14,000,000, the Western Union purchased $7,250,000. This practically restored the central overland line to the Western Union.

Of submarine telegraphs there are none landing on or leaving the Pacific coast, but all despatches from the western side of the Pacific ocean reach California by way of Europe, the Anglo-American or other cable, the overland telegraph, and a cable under the waters of the bay of San Francisco.

This is not according to the desire of Californians, who have always had periods of revival of interest in a Pacific submarine telegraph to the Hawaiian islands, Japan, China, and Australia. In 1874, at the suggestion of Cyrus Field, the United States steamer *Tuscarora*, commanded by G. E. Belknap, was detailed to make surveys and soundings from the coast of California to Japan and the Asiatic continent prelimi-

narily to the laying of a Pacific cable. The course of the survey ordered was for a route through Puget sound and via the Aleutian islands. Returning to San Francisco for coal, the steamer received orders to go southward and survey the route from San Diego to the Sandwich islands and Japan, taking the northern route on the return voyage.

Captain Belknap followed instructions, running a line of soundings from Puget sound to San Diego, thence to the Sandwich islands, and from there to Yokohama. His proposed return was on the line of a great circle passing through the Aleutian group of islands, and thence to Puget sound. But when one hundred miles from King Kassen bay, on the Japan coast, the lead sank down as if into a crater at the bottom of the ocean, the wire running out 3,494 fathoms, or about five miles, and when only about 150 fathoms remained on the reel the wire broke near the surface. The breakage was caused not only by the great weight, but by a strong current which, at a depth of 200 fathoms, struck the wire and swept it under the ship.

The *Tuscarora* then returned to the coast of Japan, and commenced another great circle in latitude forty degrees north On this line was found but a slight current, with a still greater depth of water, or 4,655 fathoms. This was nearly twice the depth of the Atlantic where the cable between Ireland and Newfoundland was laid, and the depth below the surface was found to be greater than the height of the highest mountains above the surface.

The discovery of the submerged river or current 1,200 feet below the surface of the sea was explanatory of the movement of the ice of the Arctic ocean, which is carried by it southward on the eastern side of the continent, but which never appears in the Pacific. The Pacific submarine telegraph was not, however, advanced by the discoveries made. A few years later, in 1879, the German newspapers, under

the influence of the Zulu war, took up the subject of extending telegraphic communication more completely around the world, and to all parts of it, their principal subject of discussion being the cable proposed between San Francisco, Japan, and China; but that also has been forgotten in the rush of other more immediately pressing enterprises on the continent of North America.

In 1872 San Francisco exchanged congratulations with Melbourne on the completion of the telegraph by way of India and the Red sea, which gave California connection across the Atlantic and the American continent, at an average rate of three dollars a word. To-day there is some prospect of a sub-Pacific telegraph between Victoria, the Hawaiian islands, the Indies, and Australia, dependent upon a subsidy from the British general government and the provinces, but the project is not yet well defined.

A purely Californian enterprise is the Pacific Postal Telegraph company's business, of which John W. Mackay is founder and president, and C. R. Hosmer general manager. The company owns a cable to Europe.

A number of important improvements upon the original methods of telegraphing have been invented which greatly multiply its uses. Among these are the Gold and Stock Telegraph instrument, used in transmitting the sales in stockboards; the American District telegraph, connecting private residences with a central telegraph station; and the speaking telephone. The Gold and Stock Telegraph company of California was organized April 28, 1878, with a capital of $600,000, George S. Ladd, president; James Gamble, vice-president; M. Greenwood, treasurer; Andrew White, secretary. The board of directors consisted of George S. Ladd, James Gamble, M. Greenwood, William Ashburner, and D. O. Mills. This company was the result of a combination between the Gold and Stock Telegraph company of New York

and the American District Telegraph company of San Francisco. When the American district telegraph system, which was invented in 1872 by E. A. Callahan, was introduced in San Francisco, only four signals were in use, but eight others were added by the ingenuity of George S. Ladd and Stephen D. Field. The district box is circular in shape, and around the edge of a dial are the words, "messenger," "coupé," "hack," "telegraph," "doctor," "coal," "transfer," "police," "fire," with two blank spaces for miscellaneous messages. Simply by turning a pointer to the right word, and pulling a lever at the side of the box, the signal is transmitted to the office, and a messenger immediately sent on the errand, or the order is given by telephone to the party wanted.

In like manner, when the telephone was introduced in 1877, it was made tenfold more valuable here by the invention of the Telephone exchange, which was devised by Mr Ladd. It supplies a separate wire from a central station to each subscriber, who has furnished him a receiving and transmitting telephone, a signal bell, and like conveniences. Each wire terminates at the exchange in a switch and annunciator, which operates precisely as a hotel annunciator. The operator responding to a call receives instruction to place the subscriber in communication with another subscriber, who is called by the operator, and the two then converse upon any subject with perfect privacy. Exchanges are in operation in a dozen or more of the most important towns on the coast, and are being rapidly multiplied. They may be connected by wires from place to place, until the whole state is in speaking connection. The San Francisco Exchange has ten offices, 700 miles of wire, and 3,500 telephones. It has 3,000 subscribers, and makes on an average 3,000 connections daily. The charge to subscribers averages eight dollars per month.

The importance of telegraphy to the commerce of the world was well stated in 1871 by Samuel B.

Ruggles from the committee on telegraphic affairs of the New York chamber of commerce. Said Mr Ruggles: "Under the widespread solidarity of commerce now recognized, any commercial facilities secured for a part become facilities for the whole. With this view the committee have deemed it useful to collect and present, in tabular form, the amount of foreign commerce of the various civilized nations, and especially of their commerce on the Pacific and the Indian oceans. The result in round numbers is a total foreign commerce exceeding $8,000,000,000, of which Great Britain, France, and the United States have more than five-eighths." If it was that in 1871, what is it in 1891, and how much has the telegraph contributed to the increase?

G. Vandenhoff

CHAPTER VI.

ROUTES AND TRANSPORTATION—OCEAN TRAFFIC.

EARLY VESSELS IN PACIFIC WATERS—INFLOCKING SHIPS OF THE GOLD-DIGGERS—SHIP-BUILDING—WRECKS AND DISASTERS—OCEAN STEAM LINES—NEW YORK AND SAN FRANCISCO VIA PANAMÁ—THE TEHUANTEPEC ROUTE—THROUGH MEXICO VIA VERA CRUZ AND ACAPULCO—THE NICARAGUA ROUTE—HISTORY OF THE PACIFIC MAIL STEAMSHIP COMPANY.

THE presence of American sailing vessels in Pacific waters began with the efforts of a company of Boston merchants who about 1787 attempted to establish a trade with China, and whose names were J. Barrell, S. Brown, C. Bulfinch, J. Darby, C. Hatch, and J. M. Pintard. Their two vessels were the ship *Columbia Rediviva* of 220 tons, and the sloop *Lady Washington* of 90 tons, commanded respectively by John Kendrick and Robert Gray.

Nothing surprises us more in these days of two thousand ton ships than to read of vessels of the size of these ocean wanderers being sent to circumnavigate the globe, which the *Columbia* did, arriving at Boston in 1790, having carried the flag of the United States around the world for the first time. This was under the command of Captain Gray, Kendrick being left with the *Washington* on the Northwest Coast. Events in which the governments of England, Spain, and the United States took part caused these seas to be deserted for some time, or until the Spanish missions in California again tempted New England ship owners to open a trade on the coast, which was never again interrupted.

Just previous to 1849 the presence of the United

States forces in California had given a considerable impetus to the coasting trade, which the mining rush developed into a furore. In August 1848 a vessel arriving from Mexico with a cargo was signalled from the hills, and eagerly boarded by rival traders the moment she came to anchor. The imports for 1848, chiefly in the last half of the year, amounted to $100,000, and for the six months ending in April 1849, to $1,000,000, which kept on increasing in the same ratio for two years thereafter. A list of the sailing vessels visiting San Francisco bay in 1846–8 is given in the fifth volume of my *History of California*, with their masters' names where known. The number is 157.

To have beheld the harbor of San Francisco in 1849–50 it would have been difficult to believe that there could ever have been absence of the means of transportation, where four years previous the lack had been as remarkable as was now the over abundance, useless while seamen were digging gold in the mines, and nobody to sail the ships whose canvass was rotting on the yardarms. No vessel could safely cast anchor without having first made prisoners of its crew. Another reason for the idleness of shipping was the arrival of a customs officer in 1849, who refused to issue licenses to vessels not built in the United States, and there were a good many such in the harbor. The commander-in-chief of the naval forces begged him to relax the stringency of his rules, and thereby reduce the cost of miners' supplies; but he was inflexible, preferring that his countrymen should pay six or seven dollars freight on a barrel of flour to Sutter's fort, rather than violate the laws of his country made with no reference to the existing condition of things. Many vessels deserted by crews and owners never went to sea again, but were used for lodging or store houses, and for prisons, or were broken up for the lumber they contained.

Could those vessels have spoken what tales they

would have unfolded! To what histories were they the introduction! Of the many they brought to California, how few realized their dreams of a grand future; how many laid down their lives; how many dragged out weary years in the hope deferred which maketh the heart sick, who long lived to remark upon the inferiority of the later times compared with '49! And so much better is it to have tried and failed than not to have tried at all that few could be found to regret these seemingly wasted years. Each has done what he could, and be it much or little it has gone toward that marvellous empire-building on these shores such as the world has never before seen, nor ever will again witness.

The number of vessels arriving in 1850 was 592 American and 58 foreign. The majority were sea rovers, but some were soon formed into lines to different ports. The list of sailing vessels which arrived at San Francisco from Atlantic ports from May 1851 to March 1857, with the clipper fleet, numbered 641, and the arrivals 918. The schooner *Sierra Nevada* sailed from China to San Francisco, 6,000 miles, in thirty-four days in the latter part of 1850. In 1852 the first regular packet line to China, the Oriental, was established by Ogden and Haynes. There was, previous to this time, no better way of insuring the delivery of a letter in China than to send it in a wooden box as freight, taking out a bill of lading; but the owners of the Oriental line sent out a mail-bag with each of their vessels, the *Pathfinder* being the first mail-carrier on this route.

The number of sailing vessels advertised to run to different parts of the Pacific in 1851 was large, partly because owners desired commissions for their vessels, and partly because there existed some actual requirement for communication. Ships coming out from New York found here nothing to carry back except passengers, who preferred the quicker steamer routes.

There was, however, great demand for vessels coming this way.

In 1851 clipper ships, a development from the American schooners known as Baltimore clippers, famous for their sailing qualities, came into use, having first been called into existence by the increasing East Indian trade, which demanded speed and regularity rather than stowage room, but still more by the immense passenger traffic to California, and by the needs of the Pacific Mail Steamship company. These ships were the admiration of the world for their grace and fleetness on the ocean. With their beautiful lines, clear, sharp prows, lofty spars, great spread of sail, and artistic tracery of rigging, they were justly admired. In this class of vessels the voyage around Cape Horn was reduced from seven or eight to three or four months, and such was the promptness of their arrival that it could be calculated with almost the certainty of a steamer. Between their advent and May 1852 seventy-four clipper-built vessels arrived in the port of San Francisco. An average passage was 125 days, but the *Sea Witch*, which arrived in 1850 in 97 days from New York, inaugurated shorter passages. The *Flying Cloud* arrived from New York in August 1851, in 89 days; the *Sword Fish* arrived in February 1852, in 90 days; while the *Surprise*, *Sea Witch*, and *Flying Fish*—the last from Boston—made the voyage in 90, 97, 98 days respectively. The queen of the seas was the *Ino*, which beat the *Flying Cloud* two days in 1852. She was a full-rigged clipper ship, rated A1. Day after day her log showed 240 miles, and at times she registered seventeen miles an hour. During the civil war the *Ino* was changed to a bark, and otherwise remodelled for use by the government, and had her name changed to the *Shooting Star*. In 1873 she was carrying coal to the ports where the Pacific Mail had coaling stations. Other famous clippers in the early days were the *White Squall*, *Typhoon*, *Trade Wind*, and *Sovereign of the Seas*.

Others were named the *David Brown, John Gilpin, Contest, Oriental, Romance of the Sea, Witchcraft, Hurricane, Climax, Wings of the Morning, Lantas, Antelope, Aramingo, Radiant, Rongua, Archer, Seaman's Bride, Ocean Spray, Competitor, Storm King*, and many poetical designations. The clipper ship *San Francisco*, valued at $500,000, was lost in February 1854. Thus the need of rapid transit to California forced the construction of numerous vessels of a superior class, which became invaluable to commerce, performing the longest voyages known to the mercantile world, and revolutionizing the shipping models of every commercial country on the globe.

The arrivals in the port of San Francisco from the 21st to the 29th of July 1853, of vessels of all classes and from various sea routes, was 166. On the 30th there was 99 vessels in port, 30 of which were American ships and barks, 23 English and the remainder French, Chilean, Peruvian, Dutch, Sardinian, Danish, Hawaiian, and Mexican.

The arrival of vessels was telegraphed to the Merchants' Exchange by means of a semi-sphere on the eminence which took the name of Telegraph hill, which communicated with a similar station at Fort Point and Point Lobos. When a steamer from Panamá or San Juan del Sur was sighted, a large black ball was hoisted on Telegraph hill.

In 1853 Joseph H. Scruttan established a line of packets to Sydney and Port Phillip, and Hughes and Parker another; nor was it long after the first delirium of gold-hunting was over when lines of sailing vessels were running with regularity to New York, Boston, Portland, Victoria, Humboldt bay, San Diego, and intermediate ports, and ports on the Mexican coast. In May 1853 there were 239 vessels on the sea with cargoes for California. The subjoined table shows to what the trade outward had grown in 1855.

TO WHAT COUNTRY.	NUMBER OF VESSELS.	VALUE OF CARGOES.
China	38	$668,600
Australia	34	933,215
Hawaiian Islands	31	480,340
Tahiti	15	75,880
Valparaiso	26	79,364
Callao	17	362,189
Mexico	26	616,559
New York	11	833,062
Lower California	6	22,919
East Indies	8	58,192
Vancouver, B. C.	6	42,376
Russian Possessions	5	62,932
Liverpool	3	317,537
Pacific Ports	14	92,796
	240	$4,645,951

The freight paid on imports carried by 71 vessels from New York was $1,749,087; on 40 from Boston, $960,906; on 9 from other eastern ports, $191,044; on 112 from foreign ports, $955,402, amounting to $3,856,439 for the year.

Ship-building was carried on to a limited extent in San Francisco at a very early period, and in 1850 extensive works for constructing and repairing vessels of all kinds were in existence in the then suburb of Happy valley, a region fronting the bay south of Market street, and still devoted to the smaller craft which go to build up an ocean marine. H. B. Tichenor & Co. had a dry dock at the foot of Second street between Rincon and Mission points, for convenience in repairing, charging sixty cents a ton for the first day, and less per day if the work was protracted.

There was profit in patching up vessels which were already afloat, but the worse for their conflicts with wind and weather; and this business, alternated with entirely original work; but as might be expected at this early date, commerce was chiefly carried on in Atlantic built vessels, American ships outnumbering all others on the lines to China, Australia, Central America, the islands of the Pacific, and Mexico. The

following table of vessels arriving in 1862 gives a comparative view of the shipping employed on the Pacific at that period:

NUMBER OF VESSELS.	WHERE FROM.	TONNAGE.	FREIGHT EARNED.
19	Australia	10,357	$ 83,649
3	Brazil	772	16,000
48	Central America	77,205	1,083,644
42	China	36,772	427,841
7	Chile	2,682	39,069
8	East India	4,583	91,576
24	England	18,735	330,878
21	France	10,485	221,067
7	Germany	2,839	60,635
1	Italy	563	6,946
5	Japan	1,342	12,000
55	Mexico	15,339	70,338
2	New Zealand	702	4,532
10	Peru	1,999	44,949
20	Sandwich Islands	7,046	34,478
12	Society Islands	1,950	20,000
1	Spain	321	6,500
75	Vancouver I., B. C.	60,717	53,905
13	Russian Asia & N.W. C.	5,410	42,540
30	Boston	28,789	597,776
73	New York	84,465	1,668,937
4	New Bedford	1,278	23,800
1	Newport	239	3,000
2	Philadelphia	2,037	38,872
9	Whalers	2,936	.....
1,455	Domestic Pac. Ports	261,893	.....
Totals..1,947		641,456	$4,982,932

This statement as compared with that of 1861 shows an increased freight of $75,000 with 65 vessels less, but as compared with 1860 a gain of 76 vessels.

Among the early shipping lines running out from San Francisco were the Merchant's line to Victoria, which owned the clipper brig *Angenette*, Lamb master, and the clipper barkentine *W. B. Scranton*, Cathcart master; the California and Oregon packet line to Portland, which owned the *Jane A. Falkinburg*, a clipper barkentine, M. C. Erskine master; the Merchant's Express line of clipper ships between New York and San Francisco, office 88 Wall street, R. M. Cooley agent, and Dewitt, Kittle & Co. agents in San Francisco; Coleman's California line to New York, established in 1662; Glidden and Williams' line

between Boston and San Francisco; and Southern Despatch line, which gave the means of communication to the coast towns of California.

As steamships multiplied sailers were forced to seek a different class of freights. For instance in 1867 there were 92 vessels which cleared for Europe with wheat, whose cargoes were valued at $4,940,403. This fact illustrated the change in California from gold-mining to agriculture. The total number of vessels arriving in 1867 was 2,677, the total tonnage being 909,025; the total departures 733, with a tonnage of 592,645, showing how much this state still depended upon the Atlantic states for manufactured goods. In 1870, 3,558 vessels arrived with tonnage of 1,062,199, and there departed 763, carrying 573,582 tons of merchandise. The freights paid on cargoes from New York in 1870 amounted to $1,023,075; from Boston, $238,927; from other Atlantic ports, $96,415; from foreign ports, $2,127,246; total, $3,485,663. This was a decrease in ocean freights since the previous year of $2,962,534, and was attributable to the opening of the transcontinental railroad, and the direct bid made for freights by the Pacific Mail Steamship company, which was compelled to compete with where it before would have encouraged sailing vessels, as I show in the history of the great corporation. For three or four years there was slight variation from the figures of 1870, but in 1874 there were 4,204 vessels arriving, of an aggregate tonnage of 1,553,514, and also a gradual increase thereafter in both imports and exports. The freight on cargoes by sea in 1876 was $5,207,725. The valuation by assessment on the personal property roll for 1877 placed the sailing vessels paying taxes in San Francisco at $1,265,000, as against steam vessels valued at $7,092,000.

In 1879 the freight paid on cargoes by sailing vessels had fallen off to $2,461,266, which had increased slightly in 1880. In 1887 the carrying trade of the

Pacific entered at San Francisco was divided in this way: American sailing vessels, 249; steamships, 168; aggregate tonnage, 539,102 Foreign sailing vessels, 276; steamships, 69; aggregate tonnage, 480,197; giving us 58,905 tons more than all the others nations. But the fact remained that more foreign than American sailing vessels entered this year, showing that to steamship lines we owed the supremacy achieved or maintained. San Francisco was the only port in the United States which could exhibit an American supremacy of the carrying trade over all foreign nations. The ability to do so was owing, however, to the fact that foreign steamers could not carry American goods over the Isthmus via Panamá; that the American steamship companies, Pacific Mail, Occidental and Oriental, and Oceanic had secured a firm hold on the trade of China, Japan and Australia, which subsidies enabled them to keep. It remains to be seen whether, with the present policy of the United States, even the steam lines will be able to retain their advantage when a ship canal shall have been completed from ocean to ocean.

In 1846 there were 407,096 tons of American shipping entering New York, and one-third as much of foreign; and this prestige we retained until about 1866. It appears from the treasury report that in 1855 a greater number of large vessels and schooners were constructed in the United States than in any previous year, their number being 901. That this should be so was not remarkable, considering the large and remunerative commerce which had sprung into existence with the settlement of California; but that this year should have remained the date of maximum ship-building requires some explanation, the falling off in 1868 being 383, although this was a period of active commercial relations with every part of the globe. Steamship lines relieved the Cape Horn fleet to some extent even in the fifties. But besides the steamers, there were also other vessels, forty-

seven clipper ships, some of which made almost two passages out in a year, seventeen of which were owned wholly or in part in San Francisco and Sacramento. During the civil war the sailing fleet on both oceans was seriously crippled, owing to the ravages inflicted on the merchant marine by confederate cruisers. Hundreds of American vessels then changed flags, adopting for safety those of other nationalities, and many were laid up to wait for peace.

The vast expenditure incurred by the government to crush the rebellion, leaving the nation deeply in debt, was the occasion of the imposition of heavy tariffs on many of the articles which enter into ship-building, greatly increasing its cost. Sailing vessels were displaced by steamers, built more cheaply in France or Great Britain than they could be in the United States, and subsidized by their respective governments. On the Atlantic there were but 30 American steamers, exclusive of the Panamá line, opposed to 106 of foreign construction. But on the North Pacific there were 30 American steamers and no foreign ones, although on the other side of the equator there was a subsidized British line.

The decrease of American ship-building on the Atlantic coast was a spur to the development of the resources of the Pacific coast, where ships could be built better and cheaper than in Maine. During 1868 7,604 tons of shipping were turned out in California in steamers, barkentines, schooners, sloops, barges, and a brig—57 vessels. In 1869 11,625 tons of shipping were constructed, being mostly river and bay steamers, schooners, and barges, with two barks, one of which, the *Webfoot*, was built at Coos bay, as well as three schooners and one steamer. In fact, Coos bay, Puget sound, and the Columbia river turned out annually vessels of fine models and excellent materials.

I show elsewhere how and why the Pacific Mail Steamship company and the transcontinental roads

combined to destroy the clipper traffic between New York and San Francisco. This, however, was not enough, even with the results of the war, to account for the marked decline of our shipping interests, there being two foreign to one American vessel entering New York in 1870, and the shipyards of that city being closed.

Two principal causes operated to bring about the change in our commerce: one the substitution by the English of iron for wood in ship-building, and a change in our navigation laws. In the first years of the existence of our government there was a difference in the duty on imported goods of ten per cent in favor of importations made in vessels built in the United States, and restrictive laws prevented foreigners from bringing any goods not produced in the country where the vessels were owned. Under these regulations our merchant marine increased rapidly. But the war of 1812 resulting, this government by treaty agreed to admit British goods in British vessels under the same import duties as our own, but did not remove the restriction with regard to foreign vessels loaded with goods not the production of their own country. Still, although we had lost a revenue which was rapidly enriching us, we retained two-thirds of the carrying trade between the two countries until 1850, when the restrictive clauses were swept away, and the English, with their ships that cost less, paid for in cheaper money, and manned by cheaper sailors, were placed on an equality with our higher-priced and dearly manned vessels. The difference it made was at once apparent. In 1849 the per cent of our foreign trade carried in American bottoms was 75; ten years afterward it was only 33 per cent, and in 1888 it was but 14 per cent.

These results were foreseen by merchants and shipowners many years ago. In February 1870 a meeting was held in San Francisco to form an association for the restoration of American shipping. They

deprecated the condition of transatlantic trade, and declared the Pacific to be "yet mainly ours, and we may make it an American possession." It was not claimed that our interior or coastwise marines had suffered; on the contrary they had prospered, and the loss was altogether in our foreign trade. Our navy was dwindling, and soon we should be complaining of overproduction, having shut ourselves out of the markets of the world. To reinstate American shipping a vigorous governmental policy must be entered upon, and congress must lessen the surplus in the treasury by subsidizing some merchant lines. Such is still the voice of the shipping and industrial league both east and west.

An attempt was made in 1876–7 to pass a bounty bill, providing that every American vessel, sail or steam, trading with foreign ports, should be allowed thirty cents per ton for each 1,000 miles sailed or steamed for a period of twenty years, one-third reduction of this rate to be made at the end of the first ten years. It was claimed that postal communication with all parts of the world should be by a compensated mail service in our own ships under our own flag; and that reasonable port charges were necessary to the shipping interest.

Why congress has obstinately refused to give protection to the marine, the only thing that England protects, it would be difficult to explain. If our trade is only to be recovered by twenty-years' bounties to all American vessels in a foreign trade, which seems reasonable since we have forty years of losses to make up, it will be paying lavishly for a lesson in political economy.

Meanwhile the shipping and industrial interests in California, and the coast generally, have not languished; in 1878 160 vessels were assessed as personal property in San Francisco. So far as wooden ships are concerned, they have always been in the process of building. But the most recent innovation

and triumph of industry has been the construction of United States steel cruisers at the Union Iron works, under contracts between the government and Prescott, Scott & Co. This is the first attempt to do this kind of ship-building on the Pacific coast, and was a signal success, the praise of which belongs to Mr Scott.

Disasters occur to a large percentage of sailing vessels, both small and great, which are classified under the heads of founderings, strandings, collisions, burnings, and other causes, which latter term must include lightnings and tempests, and the many ways in which the elements war against the undertakings of men.

The first wreck on the coast of California was that of the United States steamer *Edith*, which carried delegates to the state convention at Monterey; and I think the second was the United States brig *Lawrence*, Captain D. B. Ottinger, four miles from Point Lobos, in November 1851.

Of the hundreds of vessels of every class which visited the Pacific coast in the fifties there was the usual decimation by disaster. In November 1858 the ship *Lucas* was stranded on the Farallones, with a loss of fifteen lives. In March 1859 the brig *Ellen H. Wood* was wrecked at Salt Point, and four lives lost. The total losses this year were eighteen, among which were the following American ships: *Fanny Perley*, of 1,123 tons, which was never heard from; *Fleetwood*, of 663 tons, which was lost with 18 lives; *Helen A. Miller*, of 510 tons; *Manilon*, of 1,041 tons, lost with all on board; *Mastiff*, of 1,031 tons, burned at sea, but crew saved; *Medford*, of 600 tons; *Northern Eagle*, of 654 tons, burned in Esquimalt harbor; and *Queen of the Pacific*, which struck a rock off Pernambuco.

In the following year there were 23 disasters on the Pacific, 8 of which were total losses, among which were the *Friendship*, *John S. Cabot*, and *John Marshall*,

which carried their crews to the bottom. In November 1866 the British bark *Caya* went on the rocks at New Year point, 20 miles north of Santa Cruz, when 26 lives were lost. In 1868 there were 37 disasters, 13 of which were total losses, among which the *Hellespont* carried down four men, and the *Ellen Sears* was never heard from.

The year 1876 was an unusually disastrous one, accidents happening to 78 ships, 87 barks, 3 brigs, 35 schooners, 6 sloops, and 5 barges, besides 29 steamers injured, and 6 of which were lost. The losses to the sailing fleet were 10 ships, 6 barks, 3 brigs, and 12 whalers abandoned in the Arctic sea. The loss of life was also great, the *Harvest Queen*, with wheat for Liverpool, wrecked in the Irish channel, losing all her crew; also the *Victory, Theseus, Uncle Sam, William Sutton, Kodiak;* while the *Albert and Edward* lost 4, the *Silver Cloud* 3, and the *Perpetua* 3, in all at least 100 men, to which number should be added 50 men left with the abandoned whalers.

In the following two years there were 167 disasters, with a total loss of 45 vessels and 28 lives. It has been estimated that over $4,000,000 of capital was sunk in the sea, in the shape of sailing vessels to and from this port, between 1861 and 1878, and that 400 or 500 persons perished with them. The average for the years quoted is nearly twenty each, and probably remains about the same. There have been several notable disasters in the vicinity of San Francisco. The American ship *Franconia*, William Otis commander, out from New York, and registering 1,461 tons, carrying 2,896 tons of freight, was lost on the Farallones June 25, 1881. Her cargo consisted of railroad iron, agricultural implements, hardware, and liquors. No lives were lost. The ship *Alice Buck*, Captain Henningsen, bound to Oregon with railroad iron for the Oregon Railroad and Navigation company, struck on the rocks near Spanishtown in Half Moon bay on the 26th of September 1881, and became a

total wreck, with a loss of 11 men. She was of 1,425 tons, built in Maine, was 11 years old, and had been leaking badly for some time, from treatment received in a hurricane, so that it was the captain's intention to beach her, although the going on the rocks was accidental. All the crew would have perished but for the assistance rendered by the steamer *Salinas*, which lay at Amesport, near by. The British ship *Montagnais*, from Hull, with a cargo of coal for Wilmington, California, was burned October 2, 1881, when about 100 miles out. The crew of 21 men were rescued by the British bark *Avona*, Captain Martin, from Auckland. The *Avona* also had on board part of the crew of the ship *Acadia*, wrecked on Ducie island. The captain and crew were nine days in the boats before reaching Pitcairn island, where they were found, and where 11 men were left. The loss was attributed to an incorrect chronometer. In June 1882 the American bark *Roswell Sprague*, of 925 tons, was discovered to be on fire when twelve miles west of Point Lobos, and ran back to port, being towed in by the incoming steamer *Los Angeles* in time to save her crew. About the same time the ship *Great Western* was burned while lying at the old railroad wharf, Oakland, which was damaged to the amount of $50,000, the whole loss being $100,000. The ship had been a packet, plying between Liverpool and American ports, and had a romantic history for twenty-eight years. The *Erin Star* went ashore on Bodega point not far from this time, and was a total loss.

The British iron ship *Lammermoor*, one of the finest vessels afloat, of 1,626 tons register, Captain J. D. Guthrie, from Sydney, went ashore on the same rocks in June 1882, and became a total wreck. She was loaded with coal, and carried a crew of 28 men, who were picked up by a schooner. The vessel was valued at $60,000, and the cargo at $16,800, consigned to Williams, Dimond & Co. of San Francisco. In Octo-

ber following the British ship *Bremen*, Captain Dougall, ran on the Farallone islands in a fog, and was lost, the crew being rescued by the *Daisy Rowe*. The *Bremen*, registered 2,700 tons, was loaded with coal, and was the sister ship of the *New York*, both of which were built in Philadelphia for the Bremen trade, and were regarded as models. In 1887 there were 150 disasters to sailing vessels reported at San Francisco, with forty total losses valued at over $1,000,000, and the loss between 80 and 100 lives. In 1888 the British ship *Abercorn* was lost at the mouth of the Columbia, and 24 of the crew perished.

It was long recognized that there was needed a harbor of refuge on the coast between San Francisco and the Columbia, and the matter was kept before congress for a number of years. The points most in favor were Cape Foulweather, Yaquina bay, and Port Orford, the last being recommended by navigators as the most western point of land on this extent of coast, and most free from fogs. Senator J. H. Mitchell of Oregon labored industriously for this measure, which will require the expenditure of several millions at either place. But if, as seems to be the fact, most of the losses come from running on shore and immediately breaking up, the proposed shelter will avail little, although, as a refuge from the fury of wind and sea, it might prove to be of great importance, and it is evidently due to sailors to provide this means of preservation from their perils.

Every one knows that there are no firmer believers in luck than seamen. Haunted ships, lucky and unlucky ships, and various superstitions are credited fully by the majority of sailors, and by many shipowners. The Cunard company chose to make light of the prejudice against Friday by selecting that day for the sailing of the first steamer of their line, July 4, 1840, and no steamship line ever was more uniformly fortunate.

Against the letter S the seamen of the United

States navy entertained a dislike as being likely to involve a vessel whose name commenced with that capital in misfortune; and they instanced the *San Jacinto, Saranac, Saginaw, Scioto, Sacramento,* and *Suwanee,* which were lost; the *Shepherd Knapp* and *Senator,* wrecked; the *Southfield* sunk by the *Albemarle;* the *Signal, Sachem,* and *Satellite* captured; the *Sydney C. Jones,* burned; the *Switzerland* sunk at Vicksburg; the *Shenandoah* being a notable exception. The fondness of the American ear for the sibilant sound of a letter which was chosen more often than any other, and per consequence appeared more frequently among the lost, might account for the numerous examples given. No more lucky steamer was ever on the Pacific coast than the *Senator,* and the British ship *Senator* in 1858 made a remarkable trip to San Francisco; but the *Sacramentos* were certainly unlucky. The *Orizaba* was quoted as a lucky steamer, and had always a Johnson for captain until she was taken off and laid aside, and the *California* and *Idaho* were equally fortunate.

Among clipper ships the *Young America* was noted for speed and luck; but when she left the wheat carrying trade and essayed to be a collier on the northern coast, the charm was broken, and she foundered off Cape Flattery in 1886. Another ward of the blind goddess is the American ship *A. G. Ropes,* running between New York and San Francisco, but undoubtedly a good deal of her good-fortune is due to her commander.

An iron ship launched in England as the *Ada Iredale* had an eventful history. She took fire in mid-ocean, being loaded with coal, and was abandoned by her officers and crew, who expected nothing else than that she would blow up and go to the bottom. This she did not do, however, but her coals burned steadily away for months, the ship being frequently seen by passing vessels in this condition, and, finally, she drifted among the Society islands where she was

tossed into port and the fire extinguished. Being temporarily fitted up she was sent to San Francisco and there thoroughly repaired and refitted, and was admitted into the American marine under the name of *Annie Johnson*, since which change of flag and appellation her good-fortune has not deserted her.

California ship-builders avoid the names with the adjective Golden in them as unlucky, as well as the name San Francisco, which, also, besides commemorating a frightful calamity, begins with the forbidden S. As an argument against seamen's superstitions may be quoted the following brief account of the losses of steamer lines on the Atlantic, from the *Sirius*, the first steamship to cross that ocean, down to 1858, during which eighteen years there were thirteen total losses, only one of which began with an S, and only three with any one letter: *President*, never heard of; *Columbia*, all hands saved; *Humboldt*, all saved; *City of Glasgow*, never heard of; *Philadelphia*, all saved; *Franklin*, all saved; *Arctic*, a few saved; *Pacific*, never heard of; *Lyonnais*, a few saved; *Tempest*, never heard of; *San Francisco*, 200 lives lost; *Central America*, 419 lives lost; *Austria*, burned, and 500 lives lost.

The bare statement of a great commerce springing up like a fungus in a night, in a country so remote from centres of trade and so without known resources, naturally impels us to seek not for its causes only, which in the case of California was primarily the discovery of gold, but also for the means which made possible the seeming marvel—not to say miracle—for the coincidence which brought about so sudden a development of California from its ante-conquest condition to that of 1849, when it became an organized American state, is undeniably remarkable enough to remind us of our national belief in a manifest destiny.

The war with Mexico and the treaty of Guadalupe Hidalgo gave us the sovereignty of a vast extent of

territory, which otherwise small garrisons of soldiers would have occupied, much after the fashion of their California predecessors, and with as little benefit to the world, until by slow degrees a western and southern immigration would have settled it, bringing with them the ideas and institutions of the southwestern border states. Even the discovery of gold, world-witching although it was, could not have done more than bring together from various parts of the world, and from our own eastern territory, a mass of people by the slow methods of wagon and sailing vessel; and in the same slow manner would have been brought together the materials for a civilized existence.

But a greater than a conquering hero had been brought upon the stage of human affairs at the right moment to be of use at this juncture, and that greater was a force which was to revolutionize, in a manner that war could not, the business of the globe, and its name was Steam.

Steam as an agent in ocean navigation was still comparatively new in 1848, although as early as 1819 an American steam and sail vessel was constructed in Savannah, Georgia, which made a voyage to Russia via England, returning from St Petersburg to New York in twenty-six days, after which period there was a steady improvement in steam navigation, which was applied chiefly to alongshore, lake, and river vessels and boats. The first steamships turned out from New York yards were the *Lion* and the *Eagle*, built by Jacob Bell for the Spanish government in 1840. In 1841 William H. Brown built the *Kamschatka*, which was sold to the Russian government; and the United States navy received its first steam vessels, the *Mississippi* and *Missouri*, "unequalled by the like productions of any country" at that time. The *Missouri* was lost, but the *Mississippi* was still pronounced in 1850 to be the most economical and efficient steamer afloat in any waters, and not surpassed in speed and

other desirable qualities by more recently constructed naval steamers, either at home or abroad.

The first ocean steam mail line between the United States and any other country was that belonging to Samuel Cunard, established in 1840, to run between Liverpool and Boston, and subsidized by the English government to the amount of £85,000 per annum. This line was somewhat later extended to New York, and received an annual payment of £145,000 for carrying the mails, forty-four voyages to be made annually, the line to consist of nine steamers of 400 horse-power, with one spare steamer of 150 horse-power.

Great Britain had at this period lines of steam vessels carrying mails over fifteen different routes. Besides coast and European lines, there were those that extended not only to the United States and Canada, but to the West Indies, gulf of Mexico, Sydney and New South Wales, East Indies and China, and the Pacific. England had in 1847 over one hundred steam vessels suitable for war purposes, as naval battles were then fought, the aggregate horse-power of which did not exceed 32,327, or an average of 312 tons. The Cunard and West India lines of mail steamers numbered twenty, which, said a senatorial committeeman appointed to report, could "have been employed in burning down our cities and ravaging our sea-coast," finding nothing opposed to them.

In view of this disproportion of naval power, the United States congress in 1845 authorized the construction of two steamers, to carry the mails from New York to Bremen, via Southampton and Cowes, and back, offering a subsidy of $400,000 annually. The first vessel constructed for this service, in what was known as the Ocean Steam company's line, was the *Washington*, of 1,750 tons burden, with accommodations for 250 passengers. She was built by Westervelt and Mackay of New York, completed in the spring of 1847, and started on her first voyage in June. She had

sufficient power for speed, but was cranky in management, being too high out of water and too deep under water for her width, and was considered a failure, with her consort, the *Hermann*, although they continued to perform the service for which they were intended. Later vessels of the Ocean Steam company were built to avoid their defects.

The rapid application of steam to transportation in the United States is best illustrated by the fact that in 1846 there were 108 steamboats built on the Ohio river alone, and that on the Ohio and Mississippi rivers 750 were employed at this time. The average capacity was about 500 tons, and the value of the fleet $12,000,000.

On the 3d of March 1847 congress authorized the construction of four war-steamers, and allowed the secretary of the navy to contract for the building of five others, which could be converted into vessels of war, but which were to be employed in carrying the United States mails from New York to New Orleans, touching at Charleston, Savannah, and Habana, from whence they were to proceed to Chagres with the mail for Oregon, California at this time not having made a demand for mail facilities. On the Pacific side the mails were to be transported in three steamships of not less than 1,000 tons burden each.

Further, a proposal which had been made in 1846 by Edward K. Collins, James Brown, and Stewart Brown of New York, to carry the mail between New York and Liverpool twice a month during eight months of the year, and once a month during the remainder of the year, was accepted by the secretary of the navy. The Collins company agreed to construct five steamships of not less than 2,000 tons measurement and of 1,000 horse-power, built for speed, and strong enough for war, which, when not employed in the mail service, should be subject to the orders of the government for carrying despatches, at a fair compensation, if required, or to be sold to the United States

at a proper valuation if desired. The sum which the government agreed to pay for the mail service was $385,000 per annum, in quarterly instalments. The *Atlantic*, the first of this line completed, sailed on her first voyage in June 1850, followed quickly by the *Pacific*, the *Baltic*, and the *Arctic*, each of them nearer 3,000 than 2,000 tons, and having not less than 1,500 horse-power. It will be seen from this that the United States was making rapid strides in steam naval architecture between 1847 and 1850.

The contract for steamers to perform the mail service between New York and New Orleans semi-monthly, via Charleston, Savannah, and Habana, and thence to Chagres on the isthmus of Panamá, and back in the same time, was taken in April 1847 by Albert G. Slad of Cincinnati, and by him in August 1847 transferred to George Law, M. O. Roberts, and Bowes R. McIlvaine of New York. The agreement called for four vessels of not less than 1,500 tons burden, and engine of not less than 1,000 horse-power, and one of not less than 600 tons, with engines in proportion, two vessels to be ready by the first day of October 1848, and two more by October 1849, with no stated time for the fifth. Such was the overpress of work in this industry in these years, that the time of completion had to be extended for want of material, and the United States Mail Steamship company was forced to purchase the *Falcon* of 1,000 tons to commence the performance of its contract for which it was to receive $290,000 per annum. The vessels of this line which were completed before 1850 were the *Ohio* of 2,432 tons, and the *Georgia* of 2,727 tons, both of superior speed and excellence.

The contract for carrying the Oregon mail was let in November 1847 to Arnold Harris of Arkansas, who transferred it to William H. Aspinwall of New York, but with some alterations. The original agreement set forth that for the sum of $199,000 per annum Harris should perform a monthly service from

Panamá to Astoria and return once a month, for ten years, and should furnish three steamers, two of which should be not less than 1,000 tons, so constructed as to be easily convertible into war-steamers. The secretary of the navy made advances to Aspinwall to enable him to complete the contract, with the consent of congress, taking security on the vessels, and also required him to stop and deliver mails at San Diego, Monterey, and San Francisco, this alteration in the contract being made early in August 1848. Under the new agreement three vessels were constructed, namely, the *California*, *Oregon*, and *Panamá*, and the company owning them, styled the Pacific Mail Steamship company, consisted of Gardiner, Howland, Henry Chauncey, and William H. Aspinwall. The *California* left New York October 6, 1848, the other two following at intervals of one month.

In 1850, three years after the completion of the first ocean mail steamers in the United States, four important lines had been established, with about twenty strong steamers, ranging from one to three thousand tons capacity. These vessels were fleet, and their effect upon American commerce was very soon felt. The West India Royal mail of England had been since 1846 carrying the mail from Chagres to Southampton in thirty-eight days; but in 1850 the United States Mail Steamship company carried it to New York, and thence it was conveyed by the Collins line to Liverpool in twenty-two days from Chagres, or fifteen days sooner than by the British line. The establishment of the American line to Chagres had also the effect, although only three ships were as yet employed in it—the *Illinois* having been added to the *Ohio* and *Georgia*—of expelling from our southern ports fourteen British steamers, commanded by naval officers, who had become as familiar as our own seamen with the coast of the United States. Their vessels not being able to compete with ours, their wharves and other shipping accommodations were dis-

posed of. The English government, however, revised and extended its West India line, and entered into a new contract with the Royal Mail Steam Packet company, a material feature of which was to run a main line direct from Southampton to St Thomas, and thence to Chagres and back, twice a month, with steamers of larger capacity and having a speed of twelve to fourteen miles an hour. Contracts were let in 1850 for several new steamships for this line, the old ones to be employed on branch routes, and the line extended to Rio de Janeiro on the Atlantic coast of South America, while the line to Valparaiso on the Pacific coast was increased to a semi-monthly service. These movements were the immediate results of American enterprise in steamship construction, which being at that time fostered by congress was in a fair way to deprive Great Britain of her proud title of mistress of the seas, when in 1858 it received a check by the withdrawal of government patronage, and the cessation of the trans-Atlantic mails in consequence. As a matter of some interest, as a collateral to my subject, I subjoin a table of the ship-building industry, at this period of a promising growth.

BUILDERS.	NUMBER OF VESSELS.	TONNAGE.	LAUNCHED.	ON THE STOCKS.
Westervelt & Mackay	13	15,738	13,038	2,700
William H. Webb	13	27,058	19,350	7,700
William H. Brown	9	8,540	7,190	1,350
Jacob Bell	6	8,531	5,180	3,350
Thomas Collyer	8	4,400	3,350	1,050
J. Simonson	3	1,565	1,565	.....
Smith & Dimon	3	4,300	2,100	2,200
George Collyer	1	100	100	.....
Hayden & Canada	1	250	.....	250
William Collyer	6	2,525	2,400	125
Lawrence & Sneeden	5	3,750	2,300	1,450
Perrine & Stack	8	9,460	4,071	5,389
Jabez Williams	3	1,581	1,581	.....
Cape & Allison	3	500	.....	500
Isaac C. Smith	2	1,112	.....	1,112
Nehemiah Knapp	2	240	.....	240
Collyer & Webb	1	100	.....	100
Total	87	89,471	62,225	27,516

To revert to and complete the history of the Pacific Mail Steamship company for this period, it is only necessary to state that the demands for passenger service which met the first and every ship of the line, rendered it impossible to continue the first contract, and although relief was afforded by sending the Oregon mails from San Francisco by sailing vessels for some time, in March 1851 a fresh contract was entered into by which that company agreed for $348,250 annual compensation, to furnish six instead of three vessels for the service, the latter three being the *Tennessee* of 1,300 tons, the *Golden Gate* of 2,000 tons, and the *Columbia* of 700 tons. The *Columbia* arrived out in the spring of 1851 and the *Golden Gate* half a year later. With these six steam vessels the foreign and domestic mails were to be transported from Panamá to San Diego, Monterey, San Francisco, Astoria, and, if possible, to Scottsburg on the Umpqua river. The latter part of the contract was found to be impracticable, the *Columbia* being nearly lost at the mouth of the stream, and in 1853 or 1854 the contractors were allowed to omit calling at the way ports in California upon a covenant to furnish coasting steamers for the mail service to those places.

As the reader remembers, the contract of 1847 was for a route from Panamá to Astoria, a dozen miles inside the bar of the Columbia river. In 1848 some noble geographer in the navy, or treasury, or mayhap the postoffice department, suggested leaving the Oregon mails at the mouth of the Klamath river, whence it could not by any means reach the Willamette settlements, even if any vessel could land them at that point. The postal agent at San Francisco managed to have conveyed, with such regularity as could be secured in the midst of the confusion of 1849–50, the Oregon mails to Oregon, on board of sailing vessels seeking lumber or provisions in those waters; and the postoffice department, endeavoring to right the wrongs of the Oregonians, in 1850 decreed that "the mail

service for the entire distance between Panamá and Nisqually, at the head of Puget sound, should be performed in sea-steamers as stipulated in the contract with Arnold Harris in November 1847, stopping, of course, at Astoria. This order was so far modified as to make Astoria, and not Nisqually, the northern terminus, but the steamers were required to touch at Trinidad bay on the northern coast of California, and such other intermediate points as should be determined upon. It speaks well for the seamanship of the early commanders that no more wrecks occurred, considering the nature of the coast and the ignorance of the departments. The small and staunch steamer *Columbia* solved the problem for the postal agent, and in 1851 began regularly to carry the mail to Portland instead of leaving it two or three hundred miles away from the populated parts of the territory. No limited time was agreed upon between the government and the Pacific Mail company for their voyages; but the time consumed varied from twenty-five to twenty-eight days after the Isthmus transit was reduced to one day; before that the length of a voyage could not be very closely determined.

The first steamer of the Pacific Mail company to reach Panamá was the *California*, which left New York before the gold discovery was made known there, with a small passenger list. It was met on this side by the news, and took on quite a number of passengers at South American ports. But at Panamá the demand for passage to California was appalling. Between one and two thousand persons were gathered there, who had been brought to Chagres by the United States Mail Steamship company on the other side, and who had been waiting for some time for the *California*. Their plight was in general a melancholy one, and in many cases pitiable. There were at that time no wharves either on the Chagres or Panamá side, passengers being carried ashore on the backs of the natives, to make their way as best they could with

their baggage across the Isthmus. New conditions of living, unwonted exposure, tropical fruit indiscreetly partaken of, and a fever-breeding climate, worked disaster, many falling by the way stricken with disease and perishing miserably. Of those who survived, 400 were received on board the *California*, which had not accommodations for half of that number, while the majority were compelled to await the arrival of the *Oregon*. But by the time the latter appeared the crowd at Panamá was greater than a month before, and the same struggle to secure passage occurred as in the case of the first steamer. About 500 were allowed to come on board, while the remainder were left to take their chances on any already crowded sailing vessel putting into Panamá on its way up the coast.

The vessels engaged in the regular mail service were only a portion of the fleet which the Pacific Mail company soon owned or controlled. The list in 1851 was as follows:

NAME OF VESSEL.	COMMANDER.	TONNAGE.
California	Lieut. Thomas A. Budd	1,100
Oregon	R. H. Pearson	1,100
Panama	J. J. Watkins	1,100
Sarah Sands	Charles Ellsley	1,200
Tennessee	George A. Cole	1,300
Northerner	Henry Randall	1,100
Carolina	R. L. Whiting	600
Unicorn	Captain Nicholson	700
Columbia	A. V. H. Leroy	800
Sea Gull	Captain Eyre	....
Fremont	....	600

The *Golden Gate* of 2,067 tons was added at the end of the year.

The following steamers belonging to the United States Mail company, and known as the George Law line, were also running on the Pacific side in 1851, namely, the *Columbus*, Lieutenant John McGowan commanding; the *Antelope*, Captain E. H. Ackley; the *Isthmus*, Lieutenant Douglas Ottinger; the *Repub-*

lic, Lieutenant W. H. Hudson. These vessels were transferred not long after to the Pacific Mail company. Of other steamers running to Panamá, the Sandwich islands and along the coast at this early day, there were the *Chesapeake*, Captain Ward; *General Warren*, Captain Thomas Smith; *Union*, Captain James Marks; *Commodore Stockton*; *Goliah*, Captain George Flavel; *Commodore Preble*, Captain Calvin Bellard; *New World*, Captain Hutchins; *Constitution*, Lieutenant S. B. Bissell.

As to the price of passage to New York or New Orleans during the first few months of the gold rush, it was whatever their cupidity inspired the company's agents to demand. It was finally fixed at $400, and in 1851 was reduced to $300 for first-class fare; from $290 to $230 for second-class fare; and from $200 to to $165 for steerage passage. The receipts for a single trip on passengers and freight were from $300,000 to $500 000, according to the size of the vessel.

This cursory glance at the transportation facilities so quickly gathered on the Pacific coast brings me to a notice of the means by which the two oceans were at length united. Between the Atlantic and Pacific were about fifty miles of jungle, forest, and mountains, with only a crooked and insignificant river, the Chagres, as a channel of partial water transportation between them, and with no better means of navigation than the native *bungos*, supplemented, west of Cruces, by pack-mules.

Here, again, may be noticed one of those coincidences to which I have referred as touching the destiny of the west coast of America. After many years of fruitless projects and idle speculations upon a canal across the Isthmus by the United States and foreign governments, the former in 1846 entered into a treaty with New Granada for the right of way across the Isthmus of Panamá, "upon any modes of communication that now exist, or that hereafter may be constructed," our government undertaking to preserve

the neutrality of the Isthmus, and to maintain the sovereignty of New Granada. Upon the establishment of a mail route to the Pacific coast arrangements were made with that government to transport the mails between Chagres and Panamá on the arrival of the steamers at either port— service which was very indolently and imperfectly performed—for the sum of about $49,000 a year.

At length it was proposed to build a railroad. This was no new idea as applied to interoceanic transit, a survey of the Isthmus having been made in 1827 by order of President Bolivar, with a view to ascertaining the best line either for a railroad or canal from sea to sea, a report being made in favor of a canal; but Bolivar having died, there was found no one with the enterprise to undertake so great a work. But the traffic which arose under the stimulus of California immigration and commerce evidently demanded the relief of rapid transportation, and seemed also to justify it, while at the same time the great amount of mail matter passing to and fro imperatively required different handling from that which it received from the New Granadan government.

On the 15th of April 1850 a company, consisting of William H. Aspinwall, Henry Chauncey, and John L. Stephens, contracted with the government of New Granada, binding themselves to construct a railway across the Isthmus, upon terms considered favorable to both parties, and within a given time. It did not appear a great venture to undertake a road of this length, which might cost a couple of millions, and take from one to two years to bring to completion; and the New Granadan government having resigned the mail contract for the Isthmus to the railroad company, it was expected that great profits would be speedily realized.

But the company had an invisible enemy to combat. Every mile of their progress through the hitherto undisturbed swamps on their route released a deadly

5421